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LAKE CARRIERS' ASSOCIATION.

To consider and take action upon all general questions relating to the navigation and carrying business of the Great Lakes, maintain necessary shipping offices and in general to protect the common interest of Lake Carriers, and improve the character of the service rendered to the public.

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A committee representing the Lake Carriers' Assn. met in Cleveland Monday and took under consideration the question of reducing ore trimming charges at the upper lake ports—Escanaba, Marquette, Ashland, Two Harbors, and Duluth. Mr. M. A. Bradley is chairman of the committee. Among those present at the meeting were Mayor Gallup, of Escanaba, and Henry C. Barter, secretary and treasurer of the Longshoremens' Union. The presence of the mayor of Escanaba indicates that the scale of wages paid the ore trimmers is an important matter to the interests of that town. A business-like discussion of the proposition of the vessel owners resulted in a decision to reduce trimming charges at Escanaba from three cents to two and one-half cents, with the understanding that the work be given to one man to be selected by Mayor Gallup. This disposes of the question as far as Escanaba is concerned. Information from the other ports indicated that the workmen would be willing to accept a one-half cent reduction, and season contracts will likely be made with the trimmers on that basis. A dispatch from Marquette states that the men there anticipate a reduction in wages and will not object to the cut to two and one-half cents. There is said to be no likelihood of trouble at that point.

ENGINEERS IN THE NAVY.

Engineer-in-Chief, Geo. W. Melville, U. S. N., Chief of Bureau, in his recent annual report to the Secretary of the Navy, says: "I feel that it is only necessary to direct your attention to the number of engineer officers who have been retired during the past year for physical incapacity, and to the steadily increasing number of such officers on the retired list, to demonstrate that the physical strain to which the officers of the Engineer Corps are subjected is too great. In former annual reports I have given what I believe to be abundant reasons for an increase in the number of officers of the corps. As time goes on and the number of ships and their power increases, the necessity for additional officers is intensified, and I feel that I would not be doing my duty if I did not again briefly refer to the matter.

The personal element is one which must enter largely into the result of any naval engagement and if we had the powerful and the swiftest navy afloat, it would be valueless to us in time of war if we have not a sufficient number of trained men to see that the machinery of this fleet is in condition for action and to keep it going in action. The guns will be powerless without the machinery, and, other things being equal, that fleet will give the best account of itself which has the best equipment of trained men in the

engine room as well as at the guns. To sacrifice the one is merely inviting disaster to the whole, and no amount of skill on deck can compensate for the lack of it below.

It is one thing to design and build machinery, but quite a different thing to keep it in such condition that it may be ready to respond to the calls that may be made upon it under all conditions, and naval machinery is of such a character that it is only by the exercise of constant vigilance and the greatest care that it can be expected to be kept in readiness for such calls. If the number of trained men is not sufficient for this purpose, the efficiency of the ship as a whole is lowered, and the money which has been expended on her construction to produce the very qualities which were considered of paramount importance has been practically wasted.

FAST STEAMING.

A dispatch from Baltimore states that on her recent trial trip, torpedo boat No. 3 demonstrated that she is one of the fastest boats in the world. The course over which the trial was made is a triangular one of "Point No Point," and is the same over which the official trial will be made in a day or two. The new flyer carried a maximum of 250 pounds of steam and an average of 205. Her screws made 390 revolutions per minute and averaged 307 and she accomplished twenty-five knots an hour with no difficulty. She carries four torpedo tubes and three one-pound rapid-firing guns. She is one of three similar boats now building.

PORTAGE LAKE CANAL.

Capt. Ernest Meyers, of the tug B. F. Bruce, has been held for trial at the next term of the federal District Court for running his tug through the Portage lake ship canal at a speed in excess of five miles an hour. M. J. Marr, superintendent of the canal, notifies marine men that infractions of the speed regulations will be punished, as excessive speed greatly damages the banks of the canal.

OPENING OF NAVIGATION IN CANADA.

The following table, showing the average date of the opening of navigation at Canadian ports during the past twenty years, is published by Prof. R. F. Stupart on "The Monthly Weather Map" for February, 1897.

CANADIAN PORTS.	Dates of opening.		
	Earliest.	Latest.	Average.
Lake Superior: Port Arthur.....	Mar. 18	May 22	Apr. 26
St. Mary's River: Sault Ste. Marie.....	Apr. 8	May 12	Apr. 27
St. Clair River: Sarnia.....	Mar. 7	May 3	Apr. 5
Lake Erie: Port Colborne.....	Apr. 15	May 9	Apr. 25
Lake Ontario: Burlington Bay.....	Mar. 1	Apr. 28	Apr. 11
Lake Ontario: Toronto.....	Feb. 13	Apr. 25	Mar. 28
Lake Ontario: Kingston.....	Mar. 6	Apr. 24	Apr. 5
St. Lawrence River: Montreal.....	Mar. 30	May 5	Apr. 21

CONSULAR REPORTS.

Consul Taney, writing from Belfast, says: I have been informed that the president of the Atlantic Transport Steamship Co. has recently placed an order with the ship-building firm of Harland & Wolff, of this city, for two twin-screw steamships of a freight capacity of 10,000 tons each, and accommodations for 250 saloon passengers. Each ship is to cost, in round numbers \$750,000, to be ready for service September, 1897, and to be in all respects equal to the best type of Atlantic liners. The addition of these two fine steamers to the fleet is expected to greatly improve the service and popularize the route; and it is expected that the time from port to port will be reduced twenty-four hours. This company runs a line of steamers

between New York and London and also between Baltimore and London. The stock of the company is owned principally in the United States.

Consul Sprague, in his annual report, refers as follows to the building of new docks in Gibraltar: The continued increase of the British navy in battle ships and cruisers of formidable dimensions is urging upon the government the necessity of establishing, without further delay, increased docking facilities for their new specimens for naval warfare, not only at home, but in the colonies. Gibraltar has been one of the coaling stations which has already the earnest attention of the admiralty, owing to its deficiency in dock and other accommodations for the refitting of war ships, besides securing protection from outward attack for the large stock of coal that has to be kept in hand. The construction of these formidable works has already commenced, with the employment of about 4,000 workmen of all classes, who are daily kept hard at work, under the special charge of superintendents sent out from England by the admiralty authorities, who control everything connected with this important undertaking, which is likely to consume at least five years for its completion and an outlay of several millions of pounds sterling.

UNDER CIVIL SERVICE RULES.

Although Superintendent McKenzie has been retained at the St. Mary's Falls canal mainly through the intervention of lake vessel owners and captains it would seem that this was unnecessary as the civil service commission is now exercising its authority over such offices, as the following from John R. Proctor, president of the commission, will testify. The letter was received by a Cleveland vessel owner, who was prominent in the movement to retain Superintendent McKenzie. It is as follows: "In response to your communication, in which you ask to be officially informed if the employes of the government locks at Sault Ste. Marie are in the classified service, I have to inform you that the following positions are embraced within the service classified under civil service rules as reported by the secretary of war: Assistant engineers, superintendents, assistant superintendents, clerks, draftsmen, inspectors, sub-inspectors, recorders, engine men, tug captains, tug engine men, foremen, rodmen, masons, stonecutters, carpenters, custodian, steward, messenger, watchmen and leadsmen. The only positions not embraced within the service classified in the report submitted by the secretary of war were lockmen, laborers and cooks. The positions of heliographers, warehousemen and oarsmen do not seem to have been considered, but it is believed that these positions by their nature should be classified and the attention of the secretary of war will be called to them. Should the duties pertaining to them be incident to classified places, they will undoubtedly be made classified positions."

Lieutenant Peary proposes to take upon his next expedition to the North Pole a number of Eskimo women, wives of the Eskimos whom he intends to engage. He believes these women will do much towards making the expedition a success. Their presence will make their husbands more contented, and they will be of great service in making clothes, cooking, and performing other duties around the camp. These Eskimo women are very strong, and can doubtless endure as much hardship as the men. In this feature the lieutenant is no doubt perfectly correct, as all previous expeditions has proved, besides, did he not take his own wife on a successful trip once, starting two and coming back three?

NEWS AROUND THE LAKES.

BUFFALO.

Special Correspondence to the Marine Record.

The price of fuel coal is down to \$2 all round when delivered from the dock, and \$2.10 from the scows.

Talk about coal shipments, there is nothing of the sort in sight. Brokers could not secure a single cargo here on Tuesday.

Supt. W. H. Hazen, of the B., R. & P. docks, is back from a business trip to Chicago. He will have charge of the company's fueling.

The Centurion, which has just completed fitting out, has laid off all hands and will tie up to wait for better freights. The George T. Hope will also tie up until business gets better.

The credit of completing the first round trip between Lake Michigan and Lake Erie the present season belongs to the steamer C. S. Parnell. The Parnell took a cargo of grain to Buffalo from Chicago, and Saturday morning arrived at Milwaukee with a cargo of coal.

Those Canucks are fearful people. It is now announced from Port Colborne that the Welland Canal locks were closed at midnight on Saturday and would not be opened again until midnight Sunday. Such paganism ought to be frowned down and commerce allowed to pursue its natural course. In a word, I would ask the readers of the Record, "What are we here for?"

Much satisfaction is expressed at the appointment of apt. J. H. Killaran as surveyor for the English Lloyd's at this port. Capt. Killaran is well known as a skillful, qualified man and has the confidence of all with whom he is brought into business connections with. I also learn that Mr. Logan will succeed Mr. Oldham as surveyor at Cleveland and upper lake ports.

The David Bell Engine Works Co. will build a large steel tug for the Cleveland Tug Co. She will be 90 feet long, 23 beam and 14 deep. She will have a fore and aft compound engine 20 and 40x30, one boiler 12 feet in diameter and 16 feet in length. She will be one of the most powerful tugs on the lakes. She will come out next August. Her cost is estimated at \$25,000.

The Union Dry Dock Co., of Buffalo, has on the stocks a new steel tug for the Erie tug line. The tug will be 87 feet in length, 21 feet in beam, and 11 1-2 feet deep, to be furnished with compound engines. The company is also building two steel dump scows to be used on the Buffalo breakwater extension. The large steel freight steamer Starucca, sister ship to the Ramapo, is progressing steadily, though it would appear as if there was no hurry in completing her the way freights are now.

Vessel owners and some masters are complaining because the lighthouse board has neglected up to this time to place the buoys and stakes in Niagara river to make the channels between here and Tonawanda. It is usual to put these marks in place as soon as the ice has ceased to run down the river, but there has been delay this spring. Several captains complain that they are held because they dare not risk the 75-foot passage at the head of Strawberry island and past the Waverly shoals. It is now learned, however, that the buoys have been placed in position and that the lighthouse tender Haze will lose no time in locating and marking all dangers to navigation.

The largest general cargo which, it is claimed, was ever carried out of Chicago by any boat, and the largest ever delivered at Buffalo, was the one brought in Saturday by the steel steamer Orr. According to the manifest of Capt. Montague, the cargo consisted of 4,790 barrels of glucose, 4,700 bags of starch, 5,600 bags of feed, 4,500 bags of sugar and 15,380 pigs of lead. The total weight of the mixed cargo was 3,740 tons. The mean draft of the steamer was 15 feet 10 inches. The steamer brought with her the new schooner Carrington, with a cargo of 154,000 bushels of oats. The Carrington went first to the Terminal elevator, where she first unloaded a part of her cargo. This is her first trip to Buffalo.

CLEVELAND.

Special Correspondence to The Marine Record.

Mr. Robert Logan left Wednesday for Duluth to hold a survey on the steel steamer Katahdin, recently damaged in the "Soo" River.

Capt. Fred Hoffman, of St. Clair, has been appointed master of the Minnesota Liner Mesabi, and leaves port today on the first trip of the season.

The Erie railroad are building a large new warehouse on the river front, near the Willow street bridge and adjoining their former storage rooms.

Capt. J. R. Raymond, manager of the Standard Automatic Releasing Hook Co., New York, visited the port this week in the interests of their special manufacture.

The Chase Machine Co. are kept very busy fitting out vessels for the season's work and a large force of men are steadily employed on full time in keeping up with their numerous orders.

Capt. E. C. Joiner, last season in the Roumania, has been appointed master of the Sagamore and will probably leave here this week for Two Harbors. The Sagamore wintered at Erie.

The head of the river bed has simply been jammed with vessels this week. The schooners Grace Holland and

Magnetic have certainly a new dress of paint, a lovely dark green, and they both look spick and span. The Geo. H. Corliss, a large new steel schooner of the Bessemer line, was also there, besides two of the Gilchrist fleet, not to mention the dry dock work.

The several compass adjusters, or regulators of "sea-clocks," are now finding their harvest among the line and tramp, iron and steel steamers fitting out and sailing from the prominent lake ports.

Capt. H. Zealand, Port Huron, who is generally known as being one of the most skillful and capable masters on the lakes, will take charge of the Mariska this season, leaving here about Saturday.

Capt. Charles De Ott leaves this week to attend to his ore trimming work at Ashland, Wis. There are few men better liked and more generally respected than Capt. De Ott is, and his work is a guarantee of his character, or vice versa.

The schooners S. H. Foster and Alverson, of the Gilchrist fleet, are still lying at their winter quarters, head of the old river bed. There seems to be but little notion of fitting them out yet, nor is there likely to be until freight brightens up.

One of the most active men around vessels at this time is Mr. Fraser, shore engineer of the Bessemer Line, at any portion of the river, wharf, shipyard or dry dock that I get around to Mr. Fraser is in evidence. Wonder he don't get tired sometimes.

The four wooden boats required for the equipment of the new revenue cutter Gresham were built in Boston by the firm of E. O. Sheldon & Co., and forwarded on from that port here. The boats are of a high class order and reflect great credit on their builders.

J. M. Beverly (local attraction Jack), has opened quit a nice store at 150 River street, under the name of the Phenix Nautical Instrument Co. Mr. Beverly is well known, and including his compass-adjusting work, is likely to do a fair business in the future.

It will be learned with deep regret that Mr. John F. Pankhurst, vice president and manager of the Globe Iron Works Co., is not convalescing as rapidly as was hoped for. He is now residing at the Stillman hotel in this city and taking a much-needed rest from business cares.

The Glidden and tow, from Chicago to Lake Ontario, were somewhat detained on account of the steamer striking the sunken wreck of the Grand Traverse off Colchester, Lake Erie, on Saturday night. A steam pump was put aboard at this port and she proceeded on with her tow.

No time is being lost by the Cleveland Ship Building Co. in getting their new shipyard at Lorain in working order. Work is progressing steadily on the dry dock excavation, contracts for new buildings have been let and some machinery, including a large boiler, is already on the ground. It is probable that the Lorain yard will soon become one of the leading industries on the lakes.

The steamer Olympia is in the large dock at the head of the old river bed, as after a survey, they, the owners and surveyors, thought it best to look her bottom over after her late Chicago experience. She is being calked and put in the usual first-class condition, which the vessels of the Wilson Transit Co. are always kept in. Capt. Ed Morton is around the job and that is sufficient to say that the ship or steamer be thoroughly overhauled and the work done in a ship-shape manner.

At the yards of the Ship Owners' Dry Dock Co. the Continental is in the small dock for extensive repairs; in fact, I would say a thorough rebuild. She has had new deck frames, shelf pieces, decks recalked, hull inside and out, besides considerable new upper works, and Capt. Rattery is around all the time taking note of the work, as well as her master, Capt. McGarvey. If Mr. Rees is not satisfied with his outlay of several thousands of dollars on the Continental it won't be for want of adequate, careful and skilled supervision.

At the yards of the Ship Owners' Dry Dock Co. there is a new iron plant being erected with dimensions of 40 by 100 feet. In addition to this a commodious store room 30 by 40 feet shows a substantial structure. On the second story of the building Mr. Auguste Cold, secretary of the company, pertinently suggested that it be turned into a dining room for the workmen. It affords me much pleasure to announce that the secretary's views were endorsed by the stockholders, and when the building is completed the men will be given clean, commodious and warm quarters wherein to take their daily sustenance.

If there is a busy plant in Cleveland at the present time commend me to the Globe Iron Works Co.'s shipyards. I there find plans laid down for two U. S. Revenue Cutters to be numbered 71 and 72; also the large schooner building to the order of Corrigan, Cleveland, well advanced and partly plated; No. 69, which I understand is to be named the Antrim, nearly all plated. She is being built to the order of the American Transportation Co., Mr. Tenor, of Pittsburg, manager. And then comes the Sydney G. Thomas, finishing her upper works. The new Revenue Cutter Gresham is fully equipped, practically ready for service, and the Hanna yacht Comanche lying alongside of her. In addition to the foregoing the steamers Park Foster, Ira H. Owen and Alva are having four large gangways cut out on each side for the accommodation of what is called "package freight," but which really means general instead of bulk cargoes.

CHICAGO.

Special Correspondence to the Marine Record.

Mayor Harrison has appointed Captain John Roberts to be harbor master. Charles Darrow, John Carthy and F. Walterholter are assistants.

Capt. John Roberts has been appointed chief harbor-master at this port. Capt. Roberts has been in the employ of the O. S. Richardson Fueling Co. several years, and is well known and much respected.

Capt. Thos. B. Nelson left here for Whitelake, Mich., on Wednesday, to take charge of the steamer Mabel Bradshaw, which is being fitted out. The Bradshaw will make tri-weekly trips this season and will leave on her first trip May 4th.

The passenger and freight steamer A. B. Taylor, which runs between Chicago and Michigan City, was in collision with Franklin street bridge at the last named port Sunday night. The stem and upper works forward of the Taylor were badly smashed and the bridge received several hundred dollars' worth of damage. The collision was caused by the steamer's engine getting on the center. The Taylor came to Chicago for repairs.

DETROIT.

Special Correspondence to the Marine Record.

The damaged ferry boat Lansdowne is still in commission, though she will go into dock for repairs as soon as arrangements can be made.

Saturday afternoon Ashley & Dustin's homing pigeon, Brass Band, made 36 miles in 38 minutes, flying home from a point four miles off Middle Sister island. This beat the Detroit amateur record to date.

Official notices have been issued of the appointment of John Stevenson as agent, at Detroit, of the Union Transit Co., and of the Ogdensburg Transit Co. The latter agency was recently held by H. W. Chesebrough.

The United States engineer's office has been notified by L. P. & J. A. Smith, of Cleveland who hold the contract for deepening the ship channel at the mouth of the Detroit River, that work will be begun by May 1.

Major M. B. Adams, Corps of Engineers, U. S. A., light-house engineer for this district, will make his first official trip to the upper lakes next week. Assistant Engineer Woodruff will remain in charge of the light-house engineer's office during the temporary absence of Major Adams. The office has been notified that dredging contractors, L. P. & J. A. Smith, of Cleveland, who hold the contract for deepening the ship channel at the mouth of the Detroit River, will begin May 1.

The ferries will be running between the city and Belle Isle next Sunday. Three boats will be put on, and a twenty-minute service will be given. One week from Sunday the service will again be resumed. The regular daily service will be started Saturday, May 15. The usual repairs and alterations have been made in the steamers since last fall, and it is now in as good condition as the hand of man can make it without rebuilding the boats from the water line up. The fact that ice did not seriously interfere with the operation of the Windsor ferries during the winter is of the greatest advantage to the company.

The railroad car ferry steamers Lansdowne and Michigan collided at Detroit in a fog on Saturday. Jackscrews and saws had to be used to separate them. The Lansdowne had her starboard wheel, wheelhouse and guard and bulwarks demolished and had to seek the dry dock. The forward bulwarks of the Michigan were stove in, but she was able to keep at work, colliding in the river during a heavy fog and running the way these railroad ferry boats do it is a wonder that they don't come together oftener. It takes discipline, a long drill and good nerve to safely conduct this great river traffic throughout the busy season.

The large steel steamer Robert Fulton, recently built and completed by the Detroit Dry Dock Co., to the order of the Bessemer Steamship Co., is a credit to her builders, and fully meets the expectations of her owners. The Fulton, Capt. N. B. Nelson, of Cleveland, possesses all the latest improved devices for effective control that electricity and recent discoveries in steam have made possible. Her pilot house is a marvel. The captain signals the engineer by the duplex gong system, a pointer on a dial recording the order at the same time the bell rings. The vessel is lighted by electricity, and heated by steam. The officers are superbly housed in quarters finished in polished ash.

Thomas Adams, of Adams & Farwell, recalls an interesting circumstance connected with the season of 1879, the first three months of navigation was exactly like the present. At the end of those three months freights began to take an upward turn, and his firm began to look out for a big consort. They chanced upon the J. H. Rutter. The first price asked for her was \$25,000, but the agent thought this too high, and declined it. Still he kept after her. Freights continued to go up and the price of the vessel with them. The agent was finally compelled to pay \$27,000 and she passed into the hands of Adams & Farwell. Freight rates reached \$5 a ton and more before that season ended and the Rutter would have entirely paid for herself had she not gone ashore. That took some of the gilt edge off the profits, but she more than paid for herself in the next year.

The first steamers to reach Duluth and Superior were the Harlem, W. H. Gilbert and North Wind.

FLOTSAM, JETSAM AND LAGAN.

About 200 cars of ore are now forwarded daily to the Escanaba ore docks.

Shipments of ore to furnaces from the stock piles at Conneaut now average 150 car loads daily.

The steamer *Majestic*, which wintered at Milwaukee, will not go into commission before May 15.

Official announcement is made that the St. Lawrence canals will be opened for traffic on May 1.

The Minneapolis will be commanded by Capt. William Jamieson and the St. Paul by Capt. James Jackson.

The price of fuel coal in Buffalo harbor is down to \$2 all round when delivered from the dock, and \$2.10 from the scows.

A dispatch from Chicago says: Underwriters will take immediate steps to have the old hulk of the *Grand Traverse* blown up, as it is a serious menace to navigation.

Canadian marine insurance companies are reported to have revived the pooling arrangement which prevailed two years ago. It is believed, however, that rates will remain as at present.

The Lighthouse Tender *Haze* has placed two gas buoys at Erie, one takes the place of the can buoy at the entrance to the harbor.

The light-house steamer *Dahlia* has placed a Pintsch gas buoy on Peshtigo reef. This buoy will remain lighted six months at a time and will be a great safeguard to vessels.

This week the biggest timber fleet in the history of the city is at Toledo, eleven steamers and schooners. They will take away 320,000 cubic feet of timber and all will leave this week.

The pilot chart of the N. Pacific Ocean for May has just been issued by the Hydrographic Office, U. S. N. J. E. Craig, commander U. S. N., is now the hydrographer, vice C. D. Sigsbee.

The Illinois legislature has consented to the purchase by the United States of lands necessary to the widening of the Chicago River.

Lumber freight rates from Menominee to Chicago open up this season at \$1.12½ per thousand feet, which is somewhat higher than last season. The indications are that this rate will be maintained.

The Cunard Steamship Co. has just issued its annual report, from which it appears that the profits of the last year have been \$1,148,940. After placing \$925,000 to the depreciation account, and \$160,000 in the insurance fund; the report recommends the payment of a dividend of 2 1-2 per cent.

Capt. George P. McKay, of Cleveland, has received a letter from J. J. Lynn, of Port Huron, stating that there is 19 feet of water over Corsica shoal. Marine Reporter Lynn, has also much trouble in keeping the float lights on the middle ground. Masters should be careful and not carry them away.

Mr. M. J. Marr, Superintendent and officer in charge of the Portage Lake waterways, has completed the regular spring examination of the ship canal. He finds the usual sand bar at the entrance. A clear channel of upwards of 16 feet exists on the west side of the canal, and has been marked by a black buoy on the west and a red flag buoy on the east side.

The Chicago & Northwestern Railway has reduced its freight rate from the Marquette range mines to Escanaba to 45¢, in place of 52¢ last year. The two railroads having ore docks at Marquette have declared a 25¢ rate in place of the 35¢ rate per ton of last season. This reduction means a saving of a quarter of a million this season to the Marquette county iron mines.

Capt. Joseph Kidd, superintendent of construction for the American Steel Barge Co. for the past eight years, has resigned and will open an office as consulting marine engineer at Duluth, and it is more than probable that Mr. Kidd will succeed beyond his most sanguine expectations, as a man is positively wanted at the head of the lakes.

The work of placing the range lights and the channel stakes in the harbors on Duluth and Superior will be commenced immediately. It will take but a short time to complete the job, as Maj. Sears, Corps of Engineers, U. S. A., proposes to put as large a force as possible on in connection with the work, and it will all be completed this week.

In coming out of Michigan City on Sunday night the steamer *A. B. Taylor* collided with the Franklin Street bridge, doing several hundred dollars damage. The stem and upper works forward of the *Taylor* were badly smashed. The cause of the collision was that the engineer was unable to reverse the engine. The *Taylor* left all well to have some repairs made in Chicago.

H. J. Pauly has sold the steamer *Westover* and barge *A. T. Bliss* to H. W. Cook of Chicago, and the latter has transferred his one-third interest in the steamers *Thomas Davidson*, *Walter Vail* and barge *Baltic* to Mr. Pauly. According to the bills of sale the value of the *Westover* is placed at \$25,000, and that of the *Bliss* at \$7,500. The deal is in the nature of a separation of interests. Mr. Pauly is now sole owner of the *Davidson*, *Vail* and *Baltic*.

The passenger steamer just built in Toronto for Graham & Horne is steel with elm sheathing. Her dimensions are 125 feet over all, 30 feet beam and 12 feet hold. She is for the Rainy River district of the British Columbia gold region, and will be taken to pieces and shipped to destination by rail. It is said that she will have a river as large as the St. Lawrence to sail on. She cost \$40,000, and it is expected will pay for herself this year. She will be called the *Keenora*.

LAUNCHES OF THE WEEK.

LAUNCH OF MINNEAPOLIS AND ST. PAUL.

There was successfully launched from the yards of the Chicago Ship Building Co., on Saturday last, the sister ships *St. Paul* and *Minneapolis*, built to the order of R. R. Rhodes and others of Cleveland.

As a matter of record it may be noted that the *Minneapolis* was started of the ways first, viz., at 2:30, followed by the *St. Paul* one hour later.

Miss Fannie Rhodes, of Cleveland, daughter of R. R. Rhodes, the managing owner, broke the conventional bottle of champagne over the bow of the *Minneapolis*, and Miss Margaret Ward, of Chicago, performed the like ceremony for the *St. Paul*. Manager Babcock, of the Chicago Ship Building Co., was in charge of the launching.

The steamers are of the Welland Canal type, and are owned by the Lower Lakes Steamship Co., of Cleveland. The *Soo Line* will run them between Gladstone and Buffalo. They are 254 1-2 feet over all, 238 feet keel, 42 feet beam, and 26 feet molded depth. The engines are triple expansion, being 17, 29 and 47 inches diameter of cylinder, by 36 inches stroke. Two Scotch type boilers 11x11 feet, engines and boilers built by the Cleveland Ship Building Co. They are the first ships on the lakes to be built under the specifications of the Great Lakes Register, and are awarded the highest class in that book.

These handsome little sister ships or rather little as compared with the dimensions of cargo boats now being put afloat, are fitted with three gangways on each side, to facilitate the handling of package freight or general cargo, and they are expected to leave the builders' hands next Saturday and proceed on their maiden trips to Gladstone to load for Lake Ontario. To launch a couple of steamers within the hour and have them finished, equipped and ready for service within the week, is a record never before attained on the lakes, and the credit for which we opine must be awarded to Manager W. I. Babcock.

LAUNCH OF THE SCHOONER CONSTITUTION.

The steel tow barge *Constitution*, built to the order of the Inter-Lake Transit Co., Cleveland, Pickands, Mathier & Co., managing owners, was successfully launched from the yards of the American Steel Barge Co., West Superior, Wis., on Wednesday last, April 21st. The christening being gracefully performed by Mrs. Dierieux.

The *Constitution* is built on the channel system, with three girders on each side of center, running fore and aft on top of floors and supporting the tank top; the second girder from the center running down and connecting to the bottom plating. All of the plating is of open hearth mild steel, having a tensile strength of 52,000 to 62,000 pounds per square inch. The principal dimensions are: Length over all, 379 feet 6 inches; keel, 366 feet; beam, molded, 44 feet; depth, molded, 26 feet; gross tonnage, 3,231.30; net tonnage, 2,998. She has eleven hatches, each 28 feet by 8 feet in the clear, with 24 feet between centers.

She is fitted with three steel pole masts, 92 feet long. The pumps are of Laidlow, Dunn, Gordon Co.'s, Cincinnati, make; the donkey boiler is by S. Freeman & Sons' Manufacturing Co., Racine, Wis.; the steam steering gear is the Williamson Bros., of Philadelphia, Pa., and the windlass, capstans and towing machines are by the American Ship Windlass Co., Providence, R. I. The deck winches are of the Cleveland Shipbuilding Co.'s make and the electric apparatus is from the General Electric Co. A complete outfit of sails and rigging is furnished by H. Channon & Co., Chicago.

TRANSFERS OF VESSEL PROPERTY.

Among the transfers of vessel property recorded at the Milwaukee customs office recently are the following: Schooner *Alice M. Beers*—Fred Struck to Henry Brandt, of Milwaukee, John Litney of Sutton's Bay, and Meinrod Oberlin of Bingham, Mich., the whole \$1,800. Steamer *Adelia Shores*—Shores Lumber Co. of Ashland to Samuel and Sidney O. Neff of Milwaukee, the whole, \$38,000. Schooner *Little Georgy*—George Weaver to Arthur E. Dow of Manitowoc, the whole, \$800. Schooner *Lydia*—August Schmidt and Berlin Hall of Manitowoc to Claus and Samuel Jorgenson of Racine, the whole, \$900. Schooner *Elva*—George and Martin Johnson of Sheboygan to Charles Gregory of Salem, Kenosha county, Wis.,

the whole, \$1,200. Schooner *C. Harrison*—Thomas B. Thompson to Herman Hanson of Milwaukee, one-fourth, \$150. Schooner *Charles J. Smith*—Sweeney Hovred and Knud Erickson of Manitowoc to William Armstrong of Ahnapee, one-half, \$550. Schooner *Ebenezer*—F. Hogen-son to I. M. Olson of Ephraim, one-third, \$175. Schooner *Lily E.*—Gustav Gunderson to Louis Gunderson of Sheboygan, one-fourth, \$600. Schooner *Norman*—P. J. Goodlet of Ephraim to Berend Anderson of Detroit Harbor, the whole, \$325. The number of transfers for \$1 and other valuable considerations recorded this season are unusually large.

A NEW LAKE ERIE LINE.

In all probability another car ferry line will be running from Conneaut to Port Burwell, Ont., before the present season is over. American capitalists have succeeded in getting the Canadian Government to make an appropriation for the harbor at Port Burwell. This was done with the understanding that the capitalists spend a similar sum, which is \$25,000, making in all, with the balance left from last year, a sum of nearly \$75,000. Those interested are very anxious to get in operation, and it is expected to begin work at once. This line in operation would make it very easy to obtain the contract from the Michigan Central for their fuel. The daily ore shipment from Conneaut harbor is now 150 cars.

OBITUARY.

(Capt. J. S. Richards.)

Capt. Richards died very suddenly in Chicago on Friday last. The late John Stevens Richards was born June 5, 1821, at the Richards homestead, Erie, Pa. He was a son of the late John and Anna Hinton Richards, natives of Cardiganshire, Wales. John Richards, the elder, went to sea from his home in Wales, at a very early age, and had circumnavigated the globe three times, when he landed in New York city and apprenticed himself to the great ship building firm of Brown & Bell. At the breaking out of the war in 1812, Brown & Bell were engaged by the government to construct war vessels, afterwards designated as Perry's fleet, and John Richards happened to be one of the considerable number of men forwarded from New York to Erie, where the vessels were built, to engage in such construction. Subsequently and throughout his life he made his home at Erie, and at various times sailed the lakes, but finally engaged permanently in ship building and had for many years charge of the construction of all the then noted "Reed Line" of steamers, and sailing vessels plying on the lakes. The Hinton, with whom he intermarried, as above mentioned, were among the very earliest settlers of Erie county, and were also natives of Wales. He died in Erie in 1845. His wife died in 1874.

John S. Richards engaged in sailing, and continued thereat for 23 years, during which period, after various promotions from subordinate positions, he had command successively of the steamers *Ohio*, *Queen City*, *Keystone*, *Western World*, the latter plying between Buffalo and Detroit, and lastly the steamship *Milwaukee*, forming a connection with the Detroit and Milwaukee and Grand Haven, Michigan. On retiring from command of the last named steamer in the spring of 1863 he became a member of the firm of Henry Rawle & Co., shippers by lake, of bituminous coal, which firm was succeeded by that of Richards, Pelton, Reed & Co., the latter firm being dissolved upon the abandonment of the Erie extension canal. Since 1871 he was a member of the firm of William L. Scott & Co.

It was always a pleasure in after years to listen to the captain relate incidents of the early days on the lakes. He had a very wide acquaintance and was a friend of every one.

Since the incorporation of the W. L. Scott Coal Co., after the death of the late Hon. W. L. Scott, in 1891, he became the president of that institution. Mr. Richards was also a director in the Second National Bank, the Youghiogeny River Coal Co., the Union Coal Co., and the Spring Valley Coal Co.

He was married in 1855 to Adelaide McAllaster, daughter of the late David McAllaster. His children, Harry Richards, Mary, wife of George R. Metcalf, and Adelaide, wife of W. W. Michener, all survive him, and to them and his wife he has left the heritage of an honorable name and a life well spent and full of good works.

TAKING UP LAKE INSURANCE.

A marine insurance agent in reviewing the history of lake insurance has the following to say in the Detroit Free Press:

"The invasion of the lake cargo and hull underwriting field by the English Lloyd's has proven the death of scores of reputable, responsible American insurance companies, so far as lake business is concerned; and the struggle between two syndicates, both representing English companies, or insurers, rather, is the last act of the tragedy, the act which seems destined to witness the wiping out of pretty nearly all the Americans' business.

"Gradually the larger companies began to send traveling agents around with orders to write up the insurance that formerly was placed with them through the local agent. One traveling agent could take care of the business of several agencies, and this saving in expense attracted the attention of the other companies, and they followed suit. This did not drive the local agent out altogether, but he began to disappear entirely when the English Lloyd's took to the field.

"For a time the foreign insurers were unpretentious in their attempts to get some of the lake business. They made the same rates as had always prevailed with their agents from port to port with orders to make rates that were considered unnaturally low by the American companies, and in this way they soon began to make the Americans take to the woods, or meet the cut with figures that did not allow of a cent of profit should one or two large losses happen in the season. In Duluth the foreign-

companies swallowed the local agencies, and then the foreign companies swallowed the lake business of the American companies. The great majority of the latter which once placed insurance on the lakes have abandoned and have turned their attention to fire and other forms of protection to the owner of property. The local agents have either closed their offices entirely to engage in other branches of business or are using the same offices for any kind of business they could find. But the foreigners are also turning their attention to fire and other forms of insurance, and they are likely to play the same trick with the Americans in those lines.

"The American insurers have not cast about for a means of checking the encroachments of the foreigners, but they are talking of it, and it would not be surprising to see something done in that line before the nation is many years older.

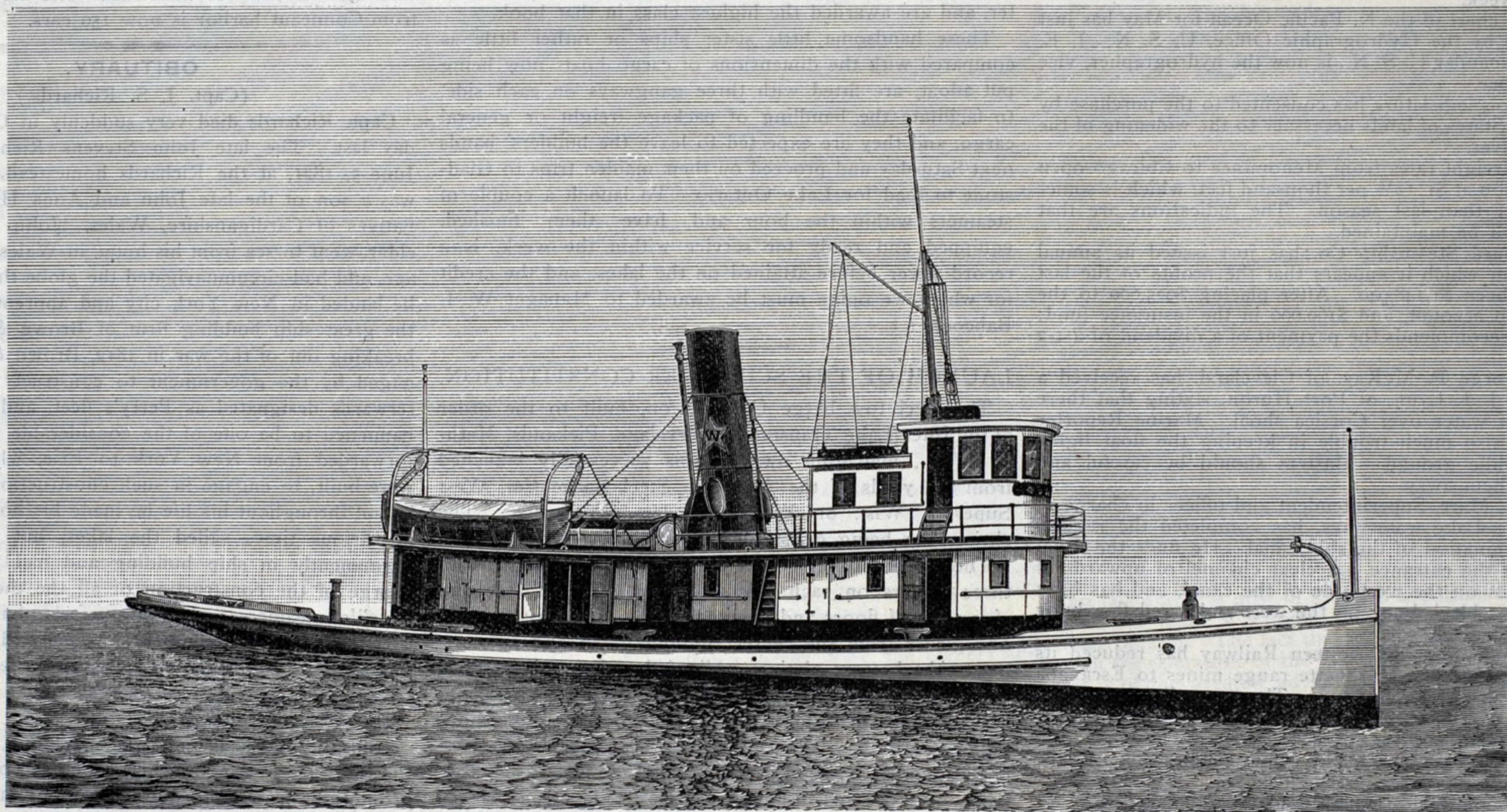
"The owners of the lake fleet will tell the inquirer for information that if the American companies will meet the rates made by the foreigners they will be given the call on the ground of patriotism, presumably. They have to meet these rates to get business. But the American insurer finds that he cannot meet this cut and live himself. His backing is not heavy enough. Could he enlist the financial aid of a Rockefeller or a Morgan or a Vanderbilt he might be able to accomplish something. But there would be little in it for the New York millionaire even at that. He would find himself confronted with a financial power equal to his own, and with him it would be years of a heavy drain on his surplus before he could finally conquer the Britishers and drive them back to their own land, even

insurance and forwarded it to London. All the policies are made out in the names of the New York people, which are Johnson & Higgins and Peck & Peck. So lax are the state laws that they do not take this into account; they are so worded that nothing can be done in the way of prevention so long as on the face the policies are made out in this country. This allows the agents of the foreign companies to go from port to port and cut rates in the different states, and there is nobody to say them nay. These circumstances have enabled them to cut the rates and drive the Americans out without compelling them to encroach on their own reserves.

"Now what I want to see is a national bureau established, with headquarters in Washington, that will compel these foreign companies to register in this country and do their business through agencies as is done by our own. They should be compelled to pay the state tax and in other ways live up to the requirements put upon the American companies. This would bring them to an equal footing with the American companies—an entirely just and equitable one at that—and would enable the latter to meet them upon equal terms. Then if the foreigners could still afford to cut the rates to get the business let them do it. It would certainly do away with the underhand methods of insurance that have been practiced by them so many years and give the American a chance for his life. He has none now."

"But is it not true that the owner of a large fleet can insure direct with the London people, without the necessity of placing it through the New York people?"

"Yes, he could do it, but he is not going to. He



MODEL OF AN OCEAN TUG

Which the firm of F. W. Wheeler & Co., West Pay City, have just contracted to build for W. G. Wilmot, New Orleans, La. She is to be 140 feet in length, triple expansion engines, diameter of cylinders 20, 33 and 54 inches, and to have two boilers.

ers found their most fertile field, and though they did not do so well in Chicago, owing to the prejudice that existed there in favor of the Americans, they still got some of it, and filled the old-line companies with alarm.

In 1895 the rate of insurance was so low and the losses so heavy that the reserve funds held by the American companies were almost swamped. What the English suffered must have been also heavy, for they covered a large number of these losses. It was starvation for the Americans and a heavy blow to the foreigners, and by an instinctive feeling both sides put the rates up in the spring of 1896, though not very high. Last year, with small losses, neither side made enough to counterbalance the losses of the year before.

"This year the British companies are divided into factions, each of which is knifing the other to get the lake business, and in the struggle between them the very few American companies left in the field are scarcely heard of, all the best boats going to one or the other of the syndicates. One of these is represented by Peck & Peck and the other by Johnson & Higgins, both of New York. The latter are the old hands in this method of insuring. It was that firm that in previous years placed all the foreign insurance on the lakes, and it was that firm that was heartily berated by the American companies who were compelled to stand by and see it gradually undermine them.

"And thus has the battle gone on. First the American

if he did finally succeed, of which there is some doubt.

"The English companies are only waiting to clear the lakes of American insurers and then their rates will be raised fast enough—and if any venturesome American dares come into the field with something lower they will as quickly drop them to meet the situation.

"A well-known Detroit man, who formerly conducted a large local agency here, explained a plan he had to bring the English companies under the authority of the separate states, as the American companies are. Said he:

"We know that the English companies do not pay a cent of taxes in this country; neither are they under the heavy expenses of maintaining agents or agencies that has to be borne by the American companies. This tax amounts to 3 per cent of the gross amount of all the insurance American companies placed, so that even though their losses are heavier than the total of their profits they still have to pay that tax. This is the law in every state. Were the foreigners compelled to pay this tax they would be placed at a great disadvantage—that is, they would be deprived of an immense advantage they now have over the Americans—would be brought to a common footing with them.

"But this is not all. According to the laws of the several states bordering on the lakes no foreign company is allowed to insure American vessels. The foreign companies have gotten around this by placing their insurance in New York. The New York agencies have taken the in-

would have to go to London personally or send a representative there at a large expense, for the law does not allow the Londoner to come here and do it for him. Then, in the event of a loss he would again have to run back and forth or pay another large sum for the work, and all this would take away the saving he would effect in the difference between American and London insurance."

Towing barges from one part of our coast to another is so common nowadays as hardly to bring forth a comment from shipping men, but the day of long towing, say from northern ports to Texas and the West Indies, will also soon be an established fact, and one of the possibilities of the near future will be the towing of oil-laden barges from the United States to Great Britain and continental Europe during the summer months. The device that will make the latter possible beyond a doubt is the Shaw and Spigle patent towing machine made by the American Ship Windlass Company, of Providence, R. I. Some of the largest and best equipped tugs and towing steamers in the world have already been fitted with these machines and it is pretty safe to predict that no well-appointed powerful tug will be built from now out that will not be fitted with one of these devices. In fact such a new vessel without this machine will not be quite up to date. One of the most recent boats to be equipped with the Shaw and Spigle towing machine is the steel tug Catiwiss, which was recently completed for the Philadelphia and Reading Railway Co.

THE STANDARD AUTOMATIC RELEASING HOOK FOR BOATS' DAVIT FALLS.

(Illustrated.)

There is now being placed upon the market an automatic releasing hook for the lower blocks of boat davit falls. The patent lays solely in the formation of the hook, nor does it require any change in the shells of the blocks or davit falls, as the present equipment, where the hooks are not in use, can be utilized to advantage.

This device has been fully tested in the U. S. Navy, Coast Survey, Light-House Department and Revenue Marine, and testimony relative to the efficiency of the hook is given by the several government departments. It is further asserted that the self-releasing hook, being reliably automatic, more than complies with the Revised Statutes governing steam vessels, as section 4488 R. S. says "every vessel navigating any of the Northern or Northwestern Lakes shall be provided with suitable boat disengaging apparatus, so arranged as to allow such boats to be safely launched while such vessels are under speed or otherwise, and so as to allow such disengaging apparatus to be operated by one person, disengaging both ends of the boat simultaneously from the tackles of which it may be lowered to the water." This automatic releasing hook, which we have seen working admirably in model

Released by the Donnelly Wrecking Co., and proceeded to Kingston without assistance.

The Adelia Shores, with lumber from Menominee to Milwaukee, found the rocky reef at the northwest end of Green Island in Green Bay. Her hull suffered more or less damage from contact with the rocks.

The steel steamer Katahdin, loaded with coal from Buffalo for Duluth, ran on Big Shoal, fifteen miles east of Detour, and the rocks pierced her water bottom. The Katahdin struck while running at full speed and went out 4 feet forward.

The schooner Lotus, bound to Cheboygan for ties, went aground on Bois Blanc Island.

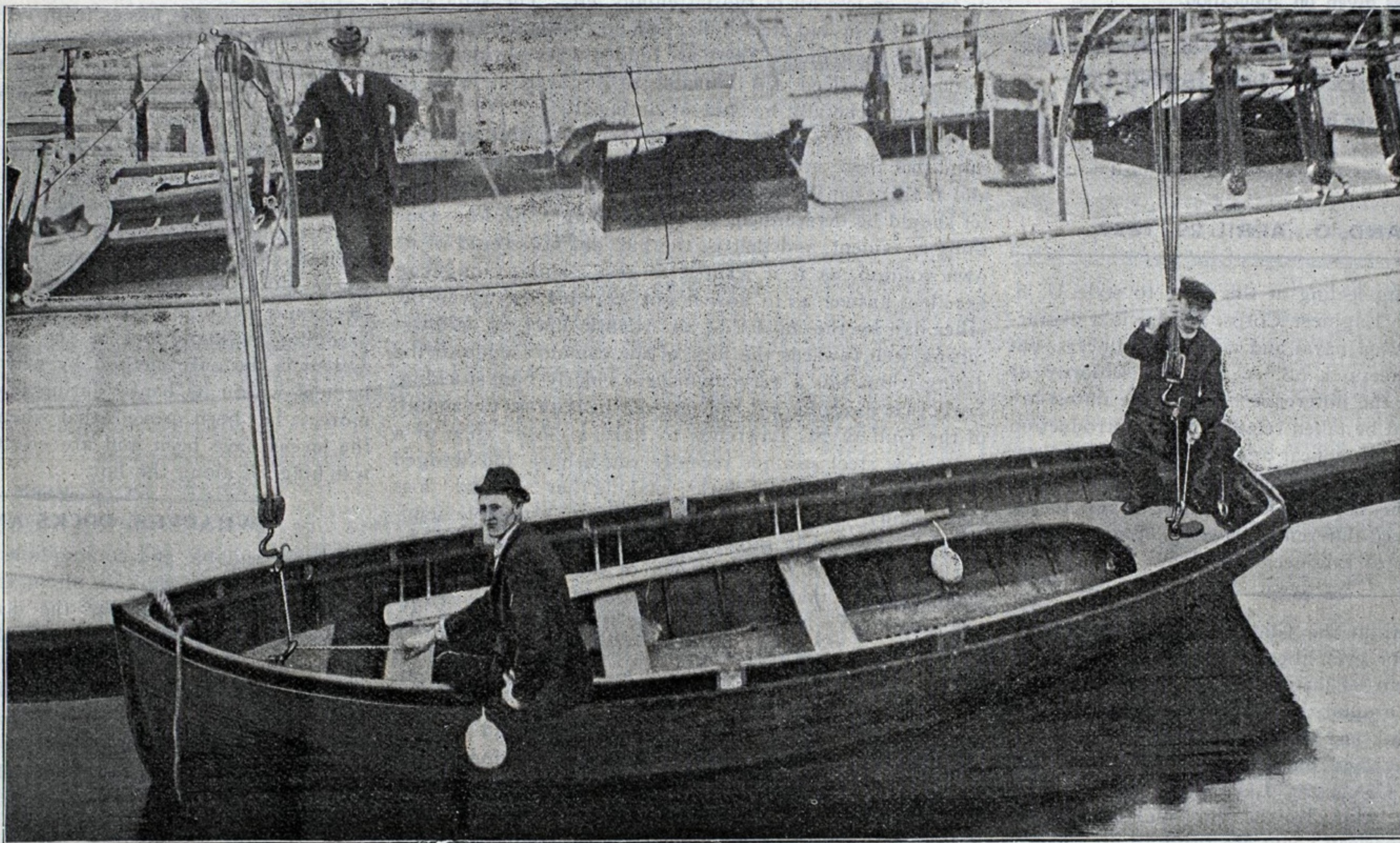
The barge Francombe, which went ashore at Adams Point, was released and taken to Presque Isle Harbor. The vessel was not leaking badly. About 900 tons of coal were jettisoned before the vessel was floated by the wrecking tug Favorite.

While running at full speed the steamer Bannockburn from Toledo with corn, went on the rocks at Snake Island on Tuesday morning. It is likely that much of her cargo will be ruined. The corn is consigned to the Montreal Transportation Co., and both vessel and cargo are insured. Immediate assistance was sent to her. The Bannockburn is an English-built boat, commanded by Capt. Irvine.

CRITICISING THE NAVY.

Mr. W. J. Wood, for some time draughtsman at the yards of the Globe Iron Works Co., and at present with the Goodrich Co., Chicago, in writing about the sarcastic comments with reference to United States naval vessels, says:

I, in common with many shipbuilders and marine men generally, think it is time to call a halt on such reflections as appear so frequently, which tend to make a laughing stock of the vessels of the White Squadron and at the same time reflect on the ability of their officers. It is well known by experts here as well as by foreigners that the United States navy, although not numerically large, has vessels as well designed, as staunchly built, and equipped and as efficiently handled and manned as those of any navy in the world. The few accidents that occur and are so widely chronicled are of no importance. The publicity given to them is no doubt the work of irresponsible reporters, who are not marine men, and who, through lack of knowledge of the design, construction and handling of large vessels, are not competent to pass judgment on any slight mishaps, but who, nevertheless, write up sensational stories. It would not matter so much, perhaps, if the articles and editorials referred to appeared only in American papers, but they are copied in foreign papers



THE STANDARD AUTOMATIC RELEASING HOOK.

form, can be released on deck, or, in fact, automatic, not even requiring the one man to operate if that may be considered a merit in the hook. The manufacturers of this automatic hook state as follows: We have aimed in the construction of this device to produce a simple and reliable detaching apparatus, one that can be relied upon at all times, made of a non-corrosive metal possessing the required strength, needing no oiling or attention, and is always ready for use at a moment's notice. In the mode of reeving the falls we have made it impossible for one end to detach without the other, irrespective of which end of the boat touches the water first. The jamming or slipping of either end of the falls would not affect the operation of the hooks so long as one end of the boat became water-borne, the tackles being rove off endless fall fashion.

THE WEEK'S STRANDINGS.

Fog caused five strandings on the lakes Saturday last. The steamers Eber Ward, J. J. Hill, Adelia Shores, Katahdin and schooner Lotus.

The Eber Ward ran on Whitefish Point, Lake Superior, a sandy beach, from which she succeeded in releasing herself without damage.

The J. J. Hill fetched up on Point Peter, Lake Ontario.

The tugs Walker and Bronson left Kingston with tows of barges laden with wheat for Montreal Tuesday. They encountered a snow storm and during the gale four of the barges ran ashore at the Johnstone lighthouse. These barges have on board about 100,000 bushels of wheat. The barge Kinghorn is sunk in one hundred feet of water, another is half full, and the others are leaking badly.

On Monday night the steamer Rosedale was driven on the rocks near Rock Island light, in the River St. Lawrence. The steamer's wheel was broken and bottom plates badly damaged. The Rosedale is insured in the Western Insurance Co., and is owned by Haggerty & Crandell, of Toronto.

Transportation men at the head of the lakes say they have been investigating the report that the Wisconsin Central and the Great Lakes Steamship Co. has cut the lake and rail tariff 5 cents out of Minneapolis and that they believe the report to be unfounded. They say it is a scheme of the head of the lakes millers to break the lake and rail rates. The millers deny this and say that they are just as well satisfied of the truth of the reported cut as they were last Thursday. If there was any truth in the report it is evident there is a disposition to square the matter as expeditiously as possible.

as news, thereby tending to lower the prestige of our officers and the fleet. I have been on cruises of fleets and squadrons of the British and French navies and have seen accidents much more serious than those recently reported, but the daily papers, much to their credit, never report them. That is not on account of any newspaper censorship either. The technical journals, edited by officers and engineers, give a clear and concise account of an accident, placing the blame as nearly as they can where it belongs and avoid sarcastic comments. Take, for example, the accident to H. M. S. Victoria, which was run down by H. M. S. Camperdown, several years ago, with the loss of so many lives. On reading the papers at that time I found that the reports in regard to that disaster were all taken from weekly technical journals. Those journals had made a thorough investigation and had the cause of the disaster clearly reviewed. If space permitted, I could give data relating to serious accidents to vessels of foreign navies, in connection with new boiler trials, collisions, getting into shoal water, etc., which even marine men on this side of the water never have heard of. The same can scarcely be said of marine men abroad, who are carefully posted on the slightest mishap to Uncle Sam's smallest torpedo boat.



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We note a growing feeling at this time to style U. S. Naval Engineers the Engineer Corps. There is a distinction, of course, between naval and military engineers, but the Corps of Engineers, U. S. A., has the seniority or priority of title and the difference between the duties are such that care should be taken relative to the introduction of which to many might appear another branch of the national service carrying a similar name, or, further, that both belonged to the same branch. There is not to the civilian a very marked difference between Engineer Corps, U. S. N., and Corps of Engineers, U. S. A.

After the accident to the Glidden the underwriters, Secretary of War, or even the interests of general commerce would seem to be justified in placing a few sticks of dynamite in and around the hull of the sunken steamer Grand Traverse, sunk last fall through collision with the steamer Livingstone, and blowing her clear of the fairway or channel off Colchester, Lake Erie. On the other hand, Pfohl & Son, who own the Traverse, say that the barges Fern and American Giant are ready to go and that wrecking operations will begin as soon as the weather is favorable. They are sure that the steamer will come to the surface easily when her coal is pumped out.

In the Revised Statutes of the United States, section 4488, the Board of Supervising Inspectors of Steamboats makes the Secretary of the Treasury "launch" boats hanging from or in the davit falls. We can conceive how a boat or any specified number of boats can be lowered away, whether the vessel is stationary or under speed, but to launch from davit falls with tackles attached smacks a good deal of Mark Twainism. A large safe weighing a ton or two could be hoisted up or lowered away from the top of a fifteen story New York or Chicago building, but to launch it from there would be a case of "stand from under." In the same section the Secretary commands, whether through act of congress or otherwise we know not, that "every vessel on the lakes, shall have, whether under way or stationary, such a suitable disengaging apparatus as to permit of one person disengaging both ends of the boat simultaneously from the tackles. This after she was launched we presume, only that there would be a slight difference between such a launch and the Dutchman's dog, who was only tied up loose at one end. However, where is the boat-lowering apparatus on the lakes that will permit of one person unhooking both tackles at the same time?

STRANDING THROUGH FOGS.

Hardly has the season of navigation opened before that dreaded enemy of lake pilots, a fog, sets in to strand sail and steam.

During the past week several A. 1. steamers have been piled up and this, too, from Lakes Superior to Ontario. This circumstance, when but few vessels are yet at work, clearly indicates what would certainly have been the result had the full tide of lake commerce been on the route from port to port.

Whether looked at from a pilots', shipowners' or underwriters' standpoint, these strandings are harmful in every way, and it is a question if the vessel owner is not at more of a loss than his underwriters. The most that can be asked for or gotten out of insurance on ship, freight and cargo, is an indemnity for the actual financial damage and that the property be placed as in its former condition previous to the casualty, detention and other consequent evils falling on the shoulders of the owners, besides, there is always the fear that even after a close survey and skillful repairs have been made, that the vessel is not in as good shape as before stranding. This is positively so in the case of wooden vessels, as the shock of striking, and straining while on the bottom, especially if there is any sea, swell or surf to give the hull a motion, must shake up more or less all of the fastenings, etc. The same can be said of iron and steel hulls, and no matter how minute the search for damage, there are hidden defects which even the most practiced eye is unable to discover, at least, so much can generally be said or anticipated.

From the foregoing, it would occur to the thinking mind that there must be some remedy for the above evils, and as there can be no effect without a cause, then the latter should be determined, the effect being apparent. One thing is evident, and that is, the hull did not strand of its own volition, as if it wanted to rest awhile, though an excellent answer as to how it got stranded was given the other day by the master of an Atlantic liner, as follows: Sitting well towards the foot of the captain's table in the dining room was a very inquisitive elderly blue-stocking. Early that morning we had sheered inshore at the mouth of the Gulf of St. Lawrence to have a closer view of a large new steel steamer recently run ashore and wedged in solidly between the rocks, making her a total loss (fog again). At the breakfast table our estimable feminine friend asked in rather a loud tone of voice, addressing the master at the other end of the table. "Captain, dear, what put that beautiful ship on the rocks?" Without a moment's hesitation, and as if wishing to cut the subject short, he at once replied: "Her propeller, madame, her propeller," emitting a special low growl half to himself, "of course her propeller did it."

But to come back to the cause of stranding in fog and admitting the propeller part of it. The question occurs who controls the motion and direction of the vessel? Well! at present the master does and universally so, then in thick weather what is he guided by? his compass, does he control or has he a thorough knowledge of the workings of that instrument? This with the usual aid of the three L's, viz: lead, log and lookout, is the key note to the situation, and demonstrates from cause to effect. Now, while none are infallible and casualties of a more or less serious nature will ever take place, in the future as in the past, there is no reason why the ordinary precautions should not be observed, nor is ignorance of surroundings or conditions any excuse for the omission of these safeguards.

It may now be thought in order to inquire how the existing evil is to be eradicated and by what process of reasoning may we point out a remedy? One word will suffice to answer the query, and that is, culture, the discovery or possession of such to be amply demonstrated in the offices of the local inspectors of steamboats, the license issuing power, and in whose hands the whole category of circumstances from cause to effect, rests, from safe sailing to not sailing at all, at least in charge. We therefore ask with all due humility that from strandings, collisions and sudden death good local inspectors deliver us.

THE MISSISSIPPI FLOOD.

The whole western country has been interested for the past week or two in the efforts of the people living along the banks of the Mississippi to keep the river from overflowing the levees or artificial banks.

The proposition has been put forward that it would

be the best for that section of the country if the river did break through and find its natural bed at a mean level with the surrounding country, then, natural banks would be formed and with a moderate amount of dredging the navigable channel might be safely maintained, otherwise, it is argued, the system of raising the artificial banks or levees, year by year, will only result in a final overwhelming of lives and property wherever the floods may ultimately reach to.

There seems to be considerable logic in the foregoing, but it is not borne out by science and experience. The Mississippi is a silt-bearing stream and thus is continually raising the level of its bottom, the area is so extensive that dredging is out of the question and there is no means known to the engineering world at present whereby a sediment carried along in suspension can be prevented from depositing silt only at one particular place, and this is especially true of the "Father of Waters."

The Engineering Magazine discusses the silt problem and says that "engineering experience has not yet shown anywhere in the civilized world any more satisfactory system than that of levees for the control of floods in silt-bearing rivers," and it at the same time declares that there must be a raising of beds and banks wherever depositions of silt occur. From this it would appear that the inhabitants along the Mississippi River must continue to repair and raise the levees from year to year, as the bottom of the river rises, and eventually place their property and homes much farther below the level of the river than they are at the present time. The river will continue to dictate terms to those who choose to live upon its banks. It is not practicable by artificial means to induce a silt-bearing river like the Mississippi to lower its bed continuously throughout great stretches of its length.

It would therefore appear that until some economy is devised whereby the silt can be filtered and deposited where it will do more good than harm, the bed of the river must perforce keep on rising; for, as we have said, dredging is simply out of the question, and the levee system is the only method by which the great river can be kept within its banks during flood seasons. Furthermore, it has been proved, that when properly maintained, the levees have been and are effective, but they require watching all along the line.

WHARVES, DOCKS AND PIERS.

A more suitable and commodious system of docks and piers ought to be built in all of the large ports on the lakes to take the place of the decaying old structures which at present disgrace the banks of the rivers. The old, rotten, and primitive looking structures should be demolished by unanimous consent of the city councils, and solid, clean, stone structures erected to keep pace with the march of improvements, and to facilitate the handling of cargo, and the mooring of vessels. While attention is directed to the grading and widening of streets, in the heart of the cities, and parks, etc., receive a favorable share of the people's wealth, the main artery of trade and commerce is left sadly neglected, and not more in one large city than another, for the old, rotten, tumble down wharves are to be found in each. The fact that water transportation has been the chief factor in making those cities the center of trade, and prosperity, ought to call for a greater degree of consideration than has ever been awarded to them by any local council, and we would venture to say that if any of the minor ports could grasp the future importance of their towns, due regard would be paid to the system of dock buildings, and the approaches to their harbors. An unobstructed system of good docks ought to run in a continuous line both sides of the different rivers. Nor should a wooden dock be any longer permissible, at least within the city limits. Instead of which, docks of solid masonry in concrete or stone, well lighted, and made passable at all times to accommodate the traffic to and from the shipping frequenting the ports, with good well-paved roads leading thereto. Already difficulty is found and expense is incurred in securing suitable and safe berths for the winter months, and many valuable vessels are obliged to make fast to docks which are not fit to tie a raft up to, while the miserable approach to them is in many cases a disgrace to any city. We have on other occasions called attention to the increasing demand for better dock and river frontage conveniences. It is time to remedy the present evils, and bring about a system of docks and wharves which will no longer be a disgrace to large and important centers of civilization.

"Whosoever commands the sea, commands the trade; whosoever commands the trade, commands the riches of the world and consequently the world itself."—Sir Walter Raleigh.

Senator Frye has introduced a bill for the licensing of officers of sailing vessels of over 700 tons, the license to continue for five years. We understand that this view emanated from the fertile brain of the present Commissioner of Navigation. At least it was announced in his last annual report. There is only one step further to be considered and that is to make deck officers and engineers licenses permanent. The competent of today is not the incompetent of tomorrow from a technical standpoint, and that is the only point from which practical and technical ability can be measured, unless the secretary of the treasury desires to invade the domain of scandal, religion or politics he can not lawfully infringe upon the rights of any citizen found competent to fulfill the duties of a voluntary office. That steamboat inspection service in its printed rules is a "holy terror" anyway, and we expect that in the near future it will go so far as to dog a candidate's footsteps for a month, before they find him eligible to earn his living by the process of "solitary confinement with the privilege of being drowned." Technical competency is the requirement in a voluntary examination, as opposed to a bolstering up by references and recommendations. Either an applicant for a license is fit or unfit to fill the grade or position he seeks in the merchant service, and unless especially accused, the grantors of licenses to work need take no more cognizance over a man's private affairs than they would like him to take over their own.

Two contracts for powerful tug boats developed this week. F. W. Wheeler & Co., West Bay City, will build for W. G. Wilmot, of New Orleans, a tug 140 feet in length, and the David Bell Co., of Buffalo, a tug 90 feet in length, for the Cleveland Tug Co. The Union Dry Dock Co. are building to the order of the Erie Tug Line a steel tug 87 feet in length. The first named craft is for coast service, so cannot be considered as a future competitor for lake favors. The other two will remain on the lakes and at their respective ports.

NEW "SOO" CANAL.

Trouble is being experienced with the gate operating the machinery of the new Poe lock at St. Mary's Falls Canal, notwithstanding that repairs amounting to nearly \$5,000 were made upon them last winter, and it was supposed that all difficulties had been overcome. There are six of these machines, and although the lock has been in operation but a few days, three of them have so far worked unsatisfactorily.

It is the general opinion that the machines cannot be made to work properly, and that the sooner they are condemned and another type substituted the better it will be for all interests. The test which the machines were given last season, demonstrated their inability for the work they are called upon to do. All of them, some time or other, broke down or else failed to operate properly. The machines are complicated, and under normal conditions require an excessive amount of care and attention and are difficult to run. It is the opinion of prominent engineers that they cannot be made satisfactorily to do the work for which they are intended. It has been announced that the old lock will not be placed actively in commission this season, provided of course that the new lock machinery is finally made to run all right. In any case, vessel interests need feel but little concern over the matter, as to supplement the work of the old lock should the new one be entirely disabled, we now have the large Canadian lock to work through until permanent repairs could be completed on the new American lock.

WELL MERITED RECOGNITION.

On May 19, 1894, the American schooner William Shupe, went ashore three miles north of Fort Gratiot, Mich. The crew of six men seemed doomed to perish. With four others, Daniel E. Lynn, marine reporter at Port Huron, volunteered to go to their assistance. The waves were running high and the weather was extremely cold. They went out in a yawl, as no lifeboat was available, with the understanding that the new tug Thompson was to tow them back. Lynn was the first man in the yawl.

A line was passed up to the half-frozen wretches, but the boat capsized, and all were drowned except Lynn, who managed to get ashore half dead.

By joint resolution of the house, introduced by Senator McMillan and Congressman Snover, the secretary of the Treasury was authorized to bestow a first-class medal upon Lynn for his bravery, the same as is given to life savers in the regular service. It will be finished at the Philadelphia mint in a few weeks, when it will be forwarded to Lynn at Port Huron. The fact that it was ordered by special legislation is mentioned on the medal.

CANAL CONCESSION.

Mr. Baker, the United States Minister to Nicaragua, has been instructed by the Department of State, to take such steps as are necessary, to prevent the forfeiture of the canal concession, by the Nicaraguan Government.

LARGEST TOW THROUGH THE WELLAND.

Capt. Wm. Gerlach, as manager of the Minch Transportation Co., Cleveland, is already making a new and favorable departure by sending down through the Welland Canal the largest tow that ever passed from the upper to the lower lakes. The steamer John Glidden and consorts Aberdeen, Minch and Warmington, loaded at Chicago the largest quantity of grain ever made up into one tow for Lake Ontario. The total is 226,000 bushels of corn for Prescott.

A LARGE FLOATING DRY DOCK.

The Blohm & Voss Ship Building Co., of Hamburg, has lately completed a floating dock, which is the largest of its kind. It has a lifting capacity of 17,500 tons, and will accommodate the largest merchant ships, as well as the heaviest war vessels. It is 190 meters long and 36 meters wide.

LAKE AND RAIL SHIPMENTS.

Lake competition is beginning to seriously affect the business of the east-bound roads from Chicago. Through shipments by the all-rail lines last week were over 12,000 tons less than for the week previous, and over 9,000 tons less than for the corresponding week last year. The lake lines from Chicago carried last week 101,239 tons of through freight and the ten east-bound roads from Chicago carried only 38,206 tons.

Last week's shipments of flour, grain, and provisions from Chicago through to seaboard points by the ten east-bound roads amounted to 38,208 tons, against 50,524 tons for the week previous, and 47,643 tons for the corresponding week last year. Flour shipments last week were 6,504 tons, against 5,387 tons last year; grain, 21,697 tons, against 33,609 tons; provisions, 10,005 tons, against 8,647 tons.

CANAL AND LAKE RATES CUT.

An open cut in west-bound canal and lake rates has been made by the Western Transit Co., the canal and lake line of the New York Central Railroad. The cut applies to Chicago, Duluth and St. Paul, and is a severe one, as it amounts to 10 cents per 100 pounds on first-class business, which is equivalent to from 20 to 30 per cent. Following are the new rates, with comparisons with the regular rates, which were established a few weeks ago by the lake steamer companies acting in concert:

	Class					
	1st.	2d.	3d.	4th.	5th.	6th.
To Chicago.....	25	20	18	16	14	12
Official rates.....	35	25	20	18	16	14
To Duluth.....	31	25	22	19	17	15
Official rates.....	41	35	29	23	21	19
To St. Paul.....	46	38	31	24	21	17
Official rates.....	56	48	38	28	25	21

THE CALUMET MINE.

There has been several stories going the rounds of the press relative to the discovery of the great copper producing mine known as the Calumet.

There is a man living in Duluth, says the Herald of that city, who knocks on the head the story of the discovery of the famous Calumet which has been circulated recently. The tale referred to had it that the mine was found by some men who were driving a drove of pigs across the country. One of the pigs discovered it rather, for it fell into a pit made by the ancient workers of the mine. The men, however, took the credit of it.

The Duluth man, whose name is J. S. Pierce, denies

the truth of this story. He says he was present when the mine was found, and, therefore, ought to know. Mr. Pierce says that he was in charge of a party of men who had been sent to explore for signs of the copper deposit, which, from indications already brought to light, it was believed existed. The preceding summer, one of the men who sent out the party in charge of Mr. Pierce, had run across the signs that led to the search being made.

An opening that, it was plain to the practiced eyes of the workers, had been made by human hands was happened upon. A descent was made and, with very little difficulty, a vein was found. A number of hammers, consisting of heads of stone bound with thongs to wooden handles was found. A buck-skin shirt was also discovered. This tumbled on being exposed to the air. Those of the Indians living in that vicinity had not even heard of the mine. This fact, in view of the tenacity with which they retain their traditions, lends support to the theory that the original workers of the Calumet ante-dated the Indians and may, possibly, have been the Aztecs.

CHARTERS.

The first development in the early part of the week was the chartering by J. H. Outhwaite & Co. for a block of 300,000 tons of ore from Marquette to Lake Erie ports to run through the season at a 65-cent rate. The rate paid on a similar charter last season was 95 cents, carried by the same vessels, the Mack fleet being in the majority. The foregoing figure should make a 75-cent rate from the head of the lakes, Duluth, Ashland or Two Harbors, but it is now a question if the opening rate will be more than 70 cents, although a ten-cent differential prevailed last year.

Perhaps the most important deal announced this week was the closing of the Illinois Steel Co. with the Minnesota Iron Co. for its supply of Mesabi ores for the season and this of course will all be carried to South Chicago by the Minnesota Steamship Co.'s fleet. The quantity which the Illinois Steel Co. will require has not yet been made known, but it is quite certain to be a considerable jag. All sorts of figures are talked of for Escanaba rates, 30 cents even being mentioned, but it is not likely that even the largest carriers would accept such a low figure and pay the charges for trimming and unloading. A couple of charters were made at 40 cents.

There is a somewhat better feeling in Chicago grain rates, although 18 cents and 14 cents is all that is now quoted on wheat and the line boats take the bulk of shipments.

A few coal cargoes are offered at the miserably low rate of 20 cents to the head of the lakes and 25 cents Lake Michigan, but many of the largest vessels are going up light in preference to accepting any such figures, others lay at their dock and await fair living rates.

NOTES.

Official numbers have been assigned by the Bureau of Navigation, Washington, D. C., to the steamer Crescent City 4213 gross and 3676 net tons, built at Chicago and from Duluth.

Queenstown, Ireland, reports that the spring rush of emigrants to the United States has begun. Two thousand passages have been booked for this week, and 75 per cent of the passengers are young women.

Capt. John McArthur, who brought out several whale-back steamers, among them the Christopher Columbus, and last season commanded the Frank Rockefeller, has been appointed shore captain at Duluth for the Northern Steamship Co., and has just assumed his new duties.

Navigation has reopened for the season and changes have been made on many steamers in the "personnel" of the engine room. There are nearly one thousand Roberts Boilers in use in steam vessels of all kinds, including passenger and freight steamers, tugs, yachts, launches, dredges, canal boats, etc., etc. On account of these changes some engineers will have charge of Roberts Boilers for the first time and we are requested to announce that The Roberts Safety Water Tube Boiler Co., of 39 and 41 Cortlandt street, New York city, will cheerfully send a full set of their descriptive and instruction circulars to any engineer applying for same and giving his full name and address. There will be no charge, and no stamps will be required.

H. C. BURRELL, Marine Reporter.

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night and day.

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Our boats are white. We'll
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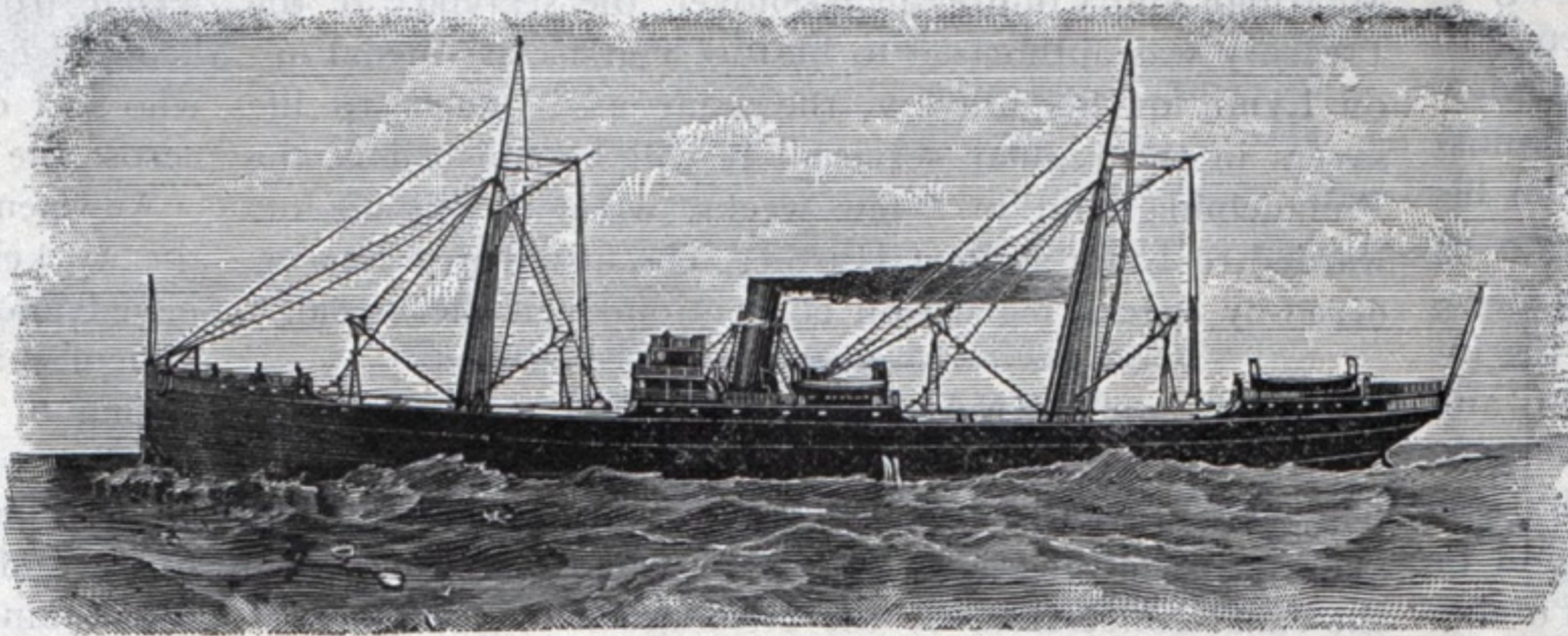
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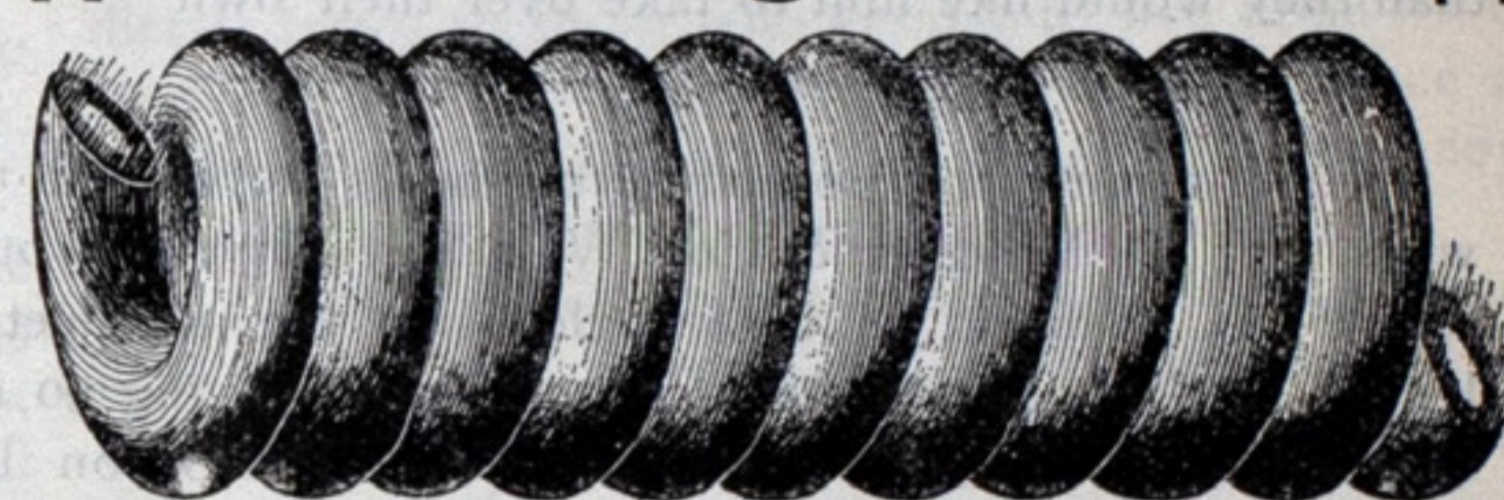
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CLEVELAND, O.

202-210 S. Water St.,
CHICAGO, ILL.

RECENT MARINE PATENTS.

578,987. Mechanism for propelling vessels. Jasper Hays, Nashville, Tenn.

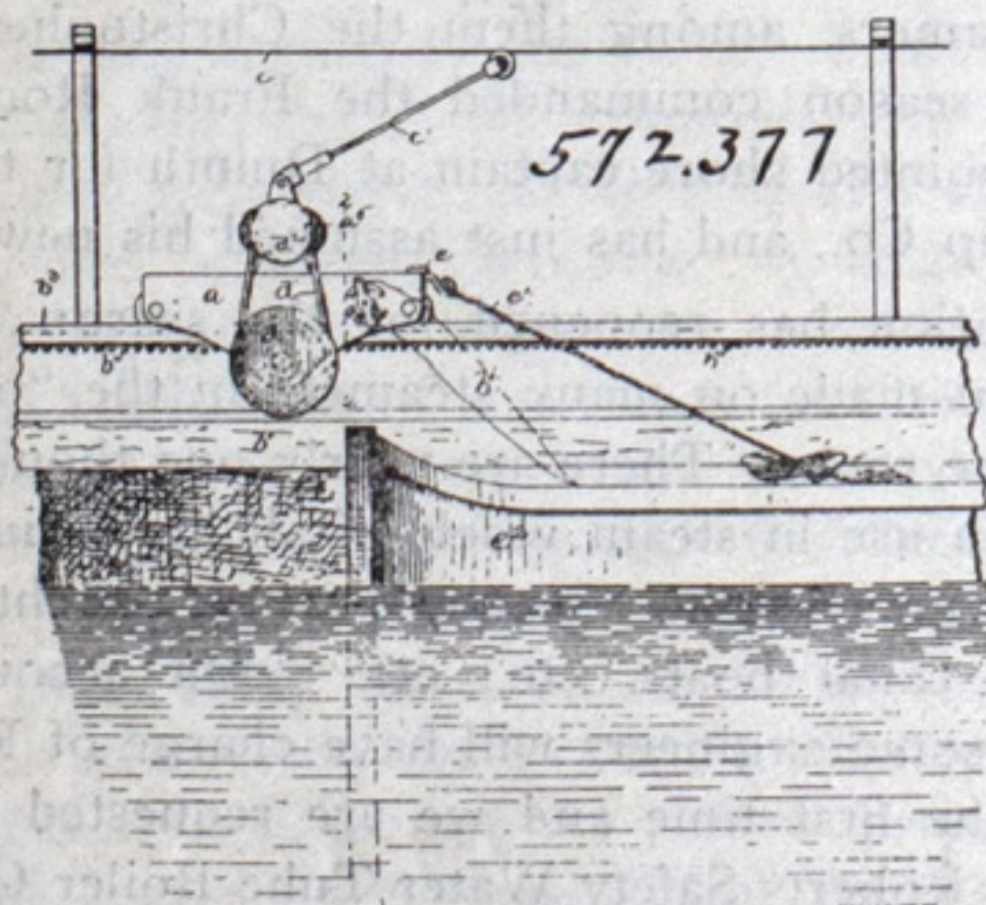
Claim.—The combination with the hull having a compartment under the stern thereof, a horizontal shaft arranged parallel with the upper walls of the hull and carry-



578,987.

ing propellers, a shaft arranged above the horizontal shaft and at an incline and a single propeller on the outer end of said inclined shaft, said propeller being of larger size than the others and forming the outer propeller of the series.

572,377. Electric towing apparatus. Adam E. Schatz, New York, N. Y.



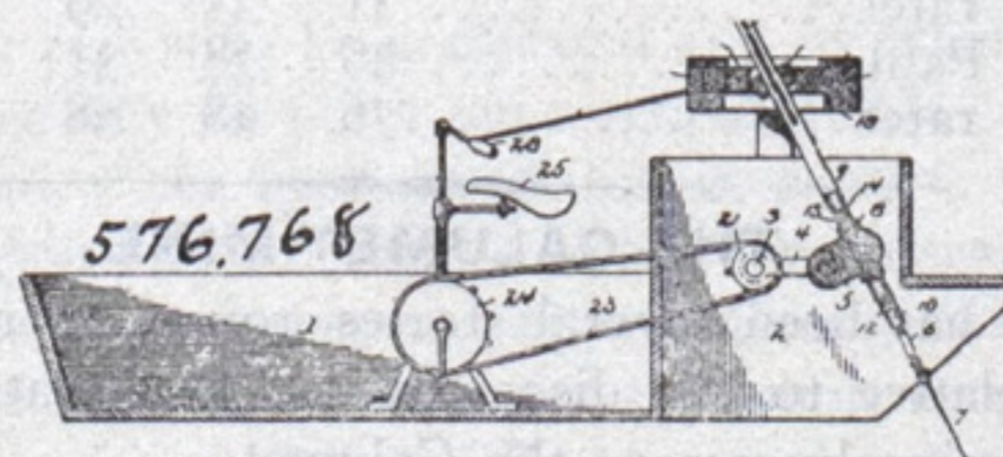
572,377

Claim.—The combination with a boat, of a carriage movable along a suitable support adjacent to a waterway, an electrical propelling-motor on said carriage, circuit connections, means for connecting the carriage and boat,

whereby the latter will be propelled by the former, and connections, including a switch, between the motor and boat, whereby the motor-current may be controlled by a person on board the boat. The combination with a fixed toothed rail located along the bank of a waterway, of an electric locomotive having a spur-gear meshing with said toothed rail, circuit connections, a boat, means for connecting the carriage of the locomotive with the boat whereby the latter will be propelled by the former, and connections, including a switch, between the locomotive and boat whereby the motor-current may be controlled by a person on board the boat. An electrical device for towing vehicles, the combination with a fixed rail, of a carriage sustaining an electric motor and geared to the rail, a coupling drag-rope attached to the carriage, a switch-lever for directing the electric current to the motor, and a pull-rope for actuating said switch-lever.

576,768. Boat-propelling apparatus. Nelson Therien, Plymouth, Ind., assignor of one-half to Alcious Stuller, same place.

Claim.—In a boat with the propeller-rod, the blade connected therewith, the tube with which said rod is con-



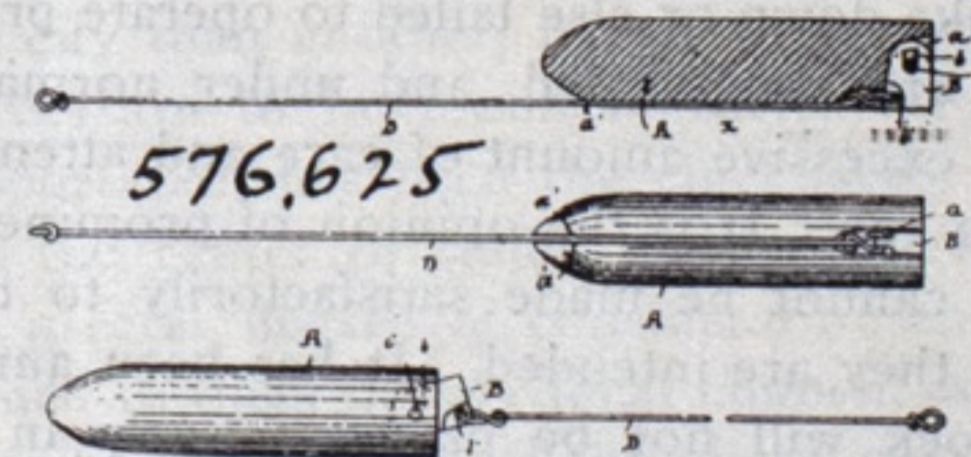
576,768

nected, the crank-shaft and the crank connected with tube, the sprocket-wheel secured to shaft, and the sprocket-wheel and chain for operating the same, of the gimbal-ring through which tube passes, the strips secured to tube, the gimbal-ring through which ring is journaled, the annulus having arms and cords and the rings and rim for supporting said annulus, the block journaled to the crank, the tube passing through an aperture therein, the propeller

blade or paddle, the slotted rod secured thereto fitting in said tube, the bolt passing through said tube, the coiled spring, the gimbal-ring through which the tube passes, the gimbal-ring to which ring is journaled, the annulus having arms and cords and the rings and rim for supporting annulus.

576,625. Projectile for carrying life-lines. William P. Shaw, Boston, Mass., assignor of one-half to John Sherman, Brookline, Mass.

Claim.—A projectile for carrying life-lines, consisting of a body having a recess at its rear end, a hinged or pivoted breech-block fitted in recess and a rod attached to hinged or pivoted breech-block; a longitudinal groove and a rod



576,625

fulcrumed to the rear end of the body and fitting into groove and extending beyond the mouth of the gun, a body A, having a recess a at its rear end, and a longitudinal groove, extending from said recess to its front end, in combination with a hinged or pivoted breech-block B, having an elongated hole b, at its upper end, and a hole b' at its lower front end, said block being held to the body by a pin C, and a rod D to its lower front end.

Consul Parker, of Birmingham, in a report dated January 25, 1897 (printed in Consular Reports for March, 1897), says for six months or more, steel has been imported from the United States into Wales for use in the tin-plate trade, and much interest has been aroused in the newspapers devoted to the iron and steel trade. "Last week the first large shipment was made into this the distinctively metal district of England.

NOTICE TO MARINERS.

CHART OF LAKE OF THE WOODS.

Department of Marine and Fisheries,
Ottawa, Canada, 12th April, 1897.

A chart of Lake of the Woods, District of Algoma, Ontario, has been published by the government of Canada showing the whole of the lake and some connecting waters, aids to navigation, steamboat channels, &c.

Copies may be obtained from the Department of Marine and Fisheries at the published price of \$1.00 each.

F. GOURDEAU,
Deputy Minister of Marines.

Lighthouse Establishment,
Office of the Lighthouse Inspector Ninth District,
Chicago, Ill., April 26th, 1897.

Notice is hereby given that the following buoys were established on April 25th in Green Bay, to mark the channel between Green Island and the west shore of Green Bay:

Menekaunee Shoal Buoy:

A second-class nun buoy painted red, moored in 28 feet of water on the eastern edge of Menekaunee Shoal, to the southward of the mouth of Menominee River, Wis.

Bearings from buoy:

Menominee Pierhead Lighthouse, N. N.W. $\frac{3}{4}$ W., 2 m.

Green Island Lighthouse, E. S.E., $\frac{1}{4}$ E., 4 m.

Sherwood Point Lighthouse, S. S.E., $\frac{3}{4}$ E., 14 $\frac{1}{2}$ m.

Green Island Shoal Buoy:

A 30-foot spar buoy painted black, moored in 18 feet of water on the western point of the spit extending from the western end of Green Island.

Bearings from buoy:

Green Island Lighthouse, E. $\frac{3}{4}$ S., 1 $\frac{1}{2}$ m.

Chambers Island Lighthouse, N.E. $\frac{3}{4}$ N., 12 $\frac{1}{2}$ m.

Menominee Pierhead Lighthouse, N.W. $\frac{3}{4}$ W., 4 $\frac{1}{2}$ m.

By order of the Lighthouse Board.

Respectfully,

J. H. DAYTON, Com., U. S. N.
Inspector 9th Lighthouse District.

EASTERN FREIGHT REPORT.

Messrs. French, Edye & Co., New York, furnishes the Record this week with the following eastern freight report: The declining tendency in our freight market in respect

to grain tonnage has continued, and the late advance in wheat, in a measure participated in by the minor cereals and only partially responded to by Europe, has unfortunately not improved the situation. There is still some uncovered demand for tonnage. May boats are in ample supply at 2s. 9d. Larger vessels for picked ports, with option of general cargo, cannot be quoted at above 2s. 6d., with a tendency to a shade lower figure in competition with rates obtainable by regular liners. A fair amount of chartering having been effected for deals from the British Provinces, rates thence are easier. Timber freights from the Gulf, however, continue to show strength and a slight advance. The demand for time boats for trips up from the West Indies appears to have been covered, and inquiry limited to special trades, for which charterers are generally expecting to secure vessels at quite a concession from rates conceded for short periods.

We have no important change to report in regard to sail tonnage. The market remains quiet, and the charters have been effected at about previous rates. The movement in petroleum tonnage has been light, owners of vessels suitable for the far East apparently holding back, while there

is but a very limited demand for Europe. We find a fair inquiry for timber tonnage from the Gulf for Europe, but, owing to the scarcity of offerings, only few charters in this line have been effected. The business for South America equally is suffering from this cause. Naval stores about hold their own, whilst the demand for general cargoes to the colonies is very light and confined to far-off vessels, shippers in that line being apparently well supplied for the next two months.

The New York Dock Department has resolved to build nine more docks on the North River front, at an estimated expenditure of \$10,000,000. These piers will be 800 feet long, or 100 feet longer than those which are now being erected between West Eleventh and Gansevoort streets for the Cunard, White Star and Wilson Lines. They will be the finest piers ever seen at the port of New York, and will have a width of 80 feet.

The National Local Fire Insurance agents hold a convention at St. Louis, and the Nickel Plate road offers excursion rates lower than via other lines. Inquire of agents. Tickets good going May 4th and 5th.

40

...Standard Automatic Releasing Hook

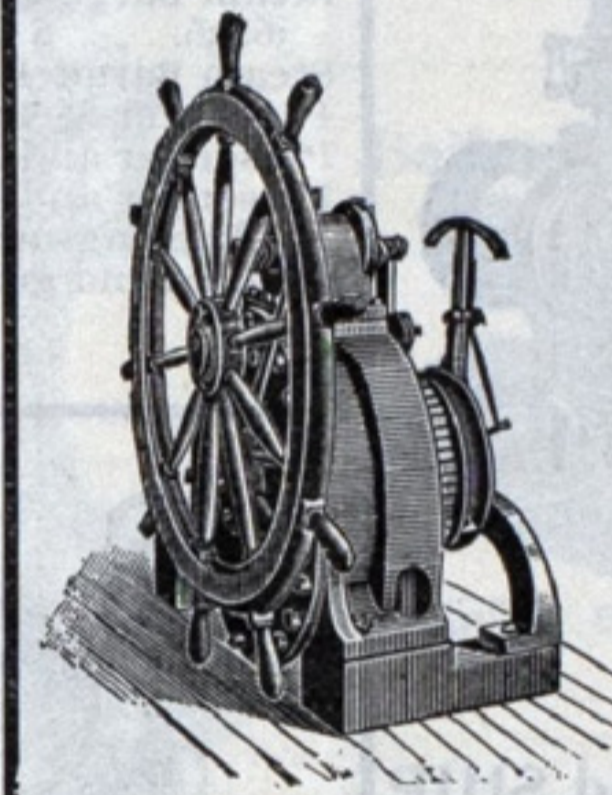
FOR NAPHTHA LAUNCHES
AND BOATS OF ALL SIZES
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Will release a boat immediately in the roughest sea or under speed, and can be hooked on without delay or injury to the hands of the men hooking it on. For further information apply to

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CAPITAL, Paid up in Cash,	-	-	-	\$3,000,000.00
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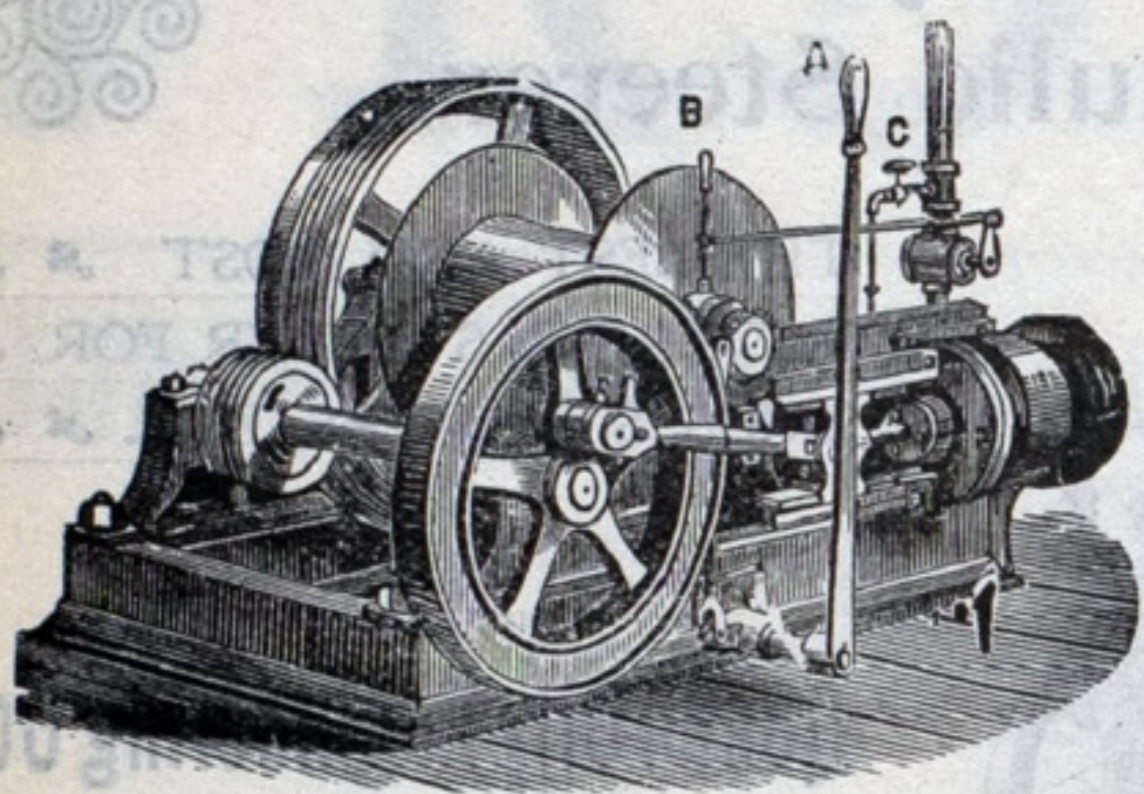
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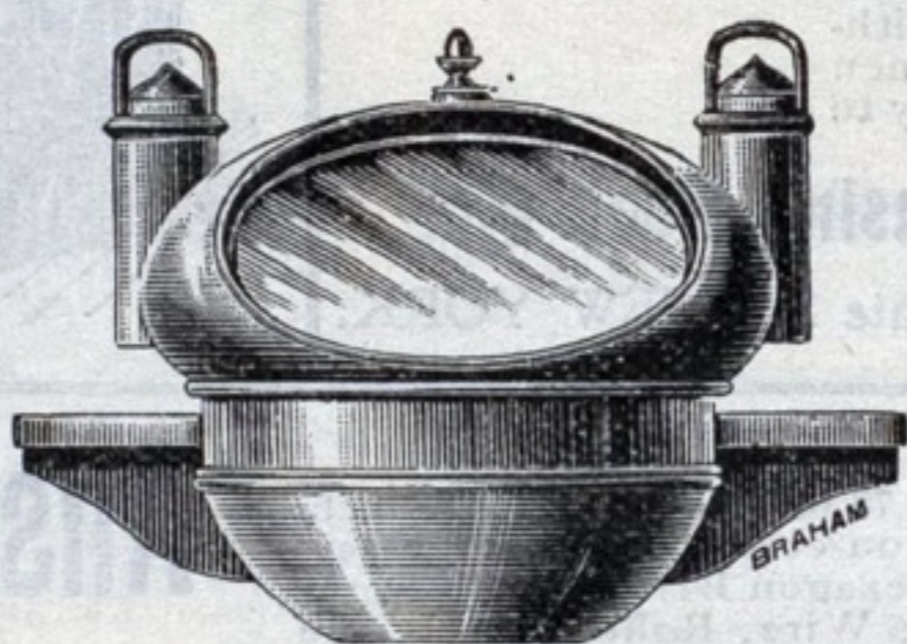
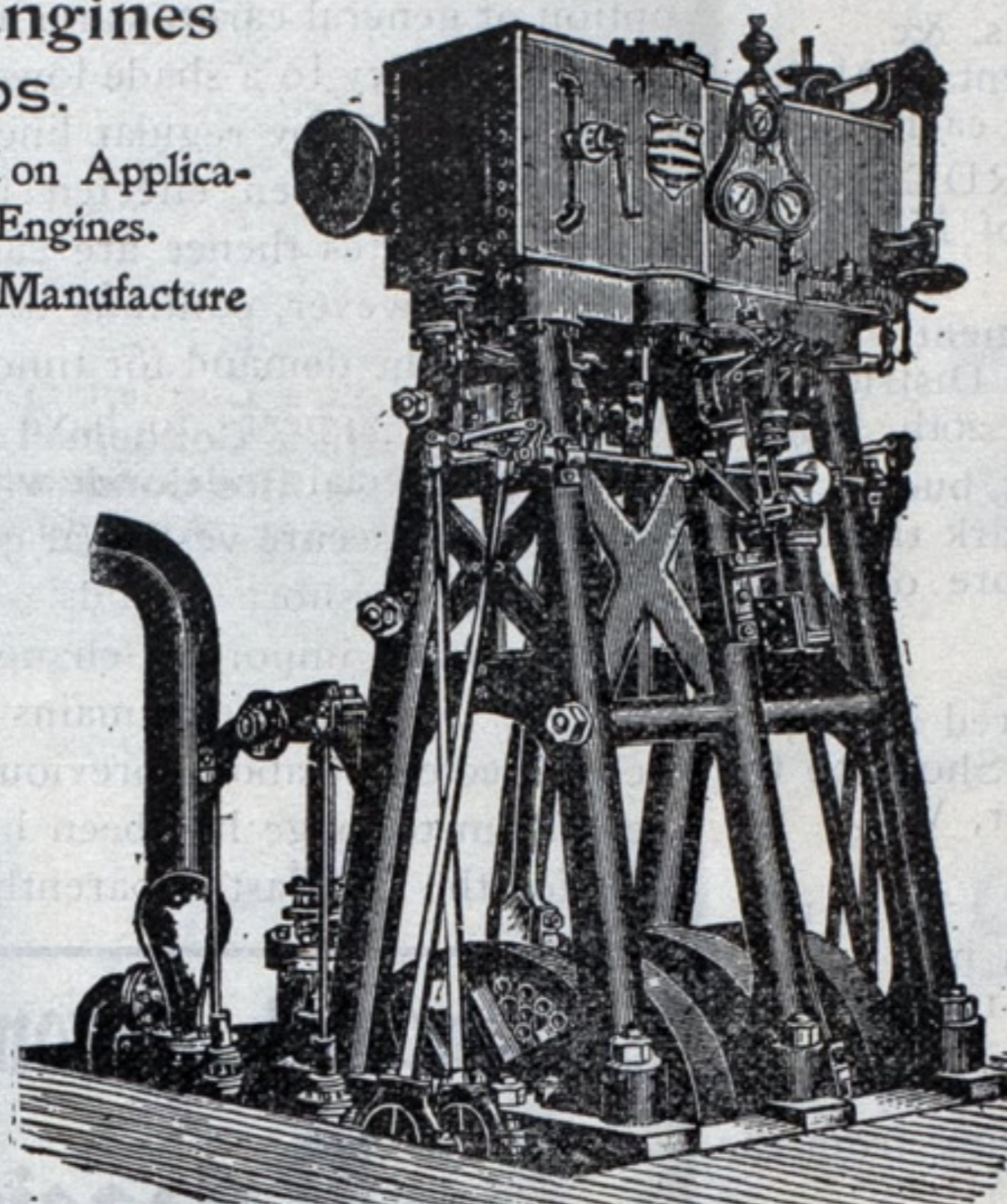
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 Tug Tacoma, Chicago, 16 and 30x24.
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 Steamer Glenn, South Haven, 14 and 28x20.
 U. S. Survey Steamer, W. S. Hancock 12 and 21x20.
 Steamer Pine Lake, Charlevoix, 16 and 30x24.
 Passenger Steamer Pilgrim, St. Clair, 14 and 28x20.
 Steam Barge Iona, Grand Haven, 24 and 46x42.
 Steam Barge M. T. Greene, Chicago, 20 and 36x36.
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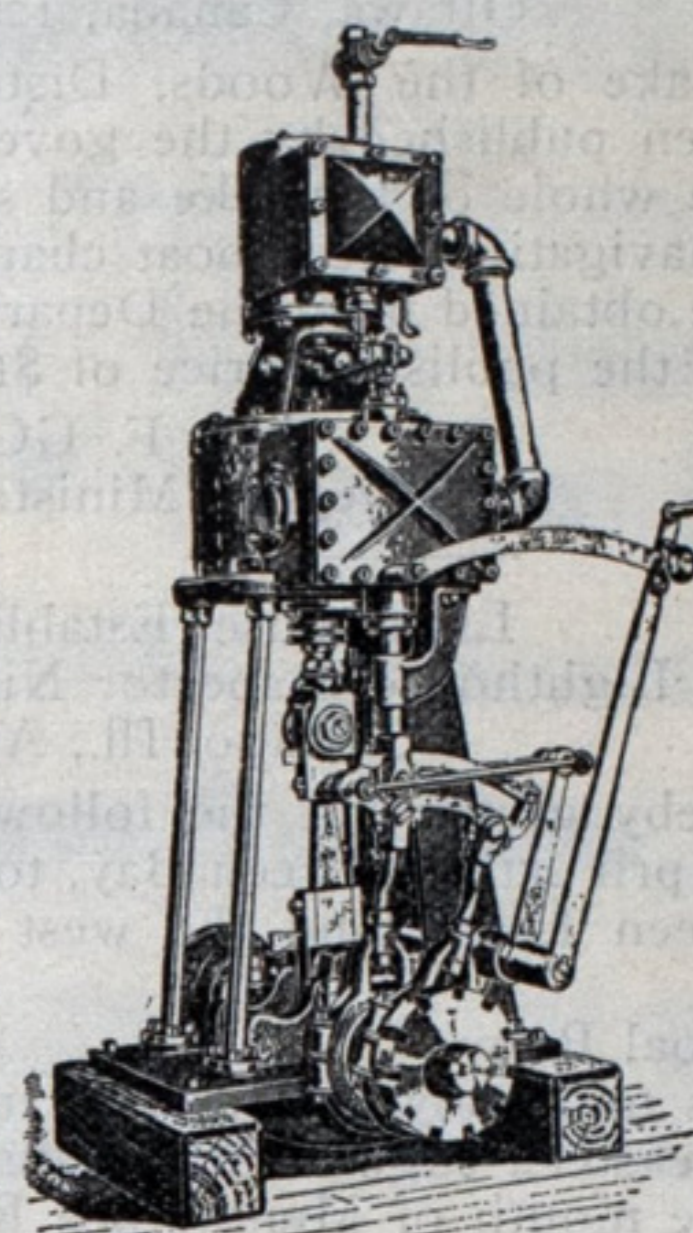
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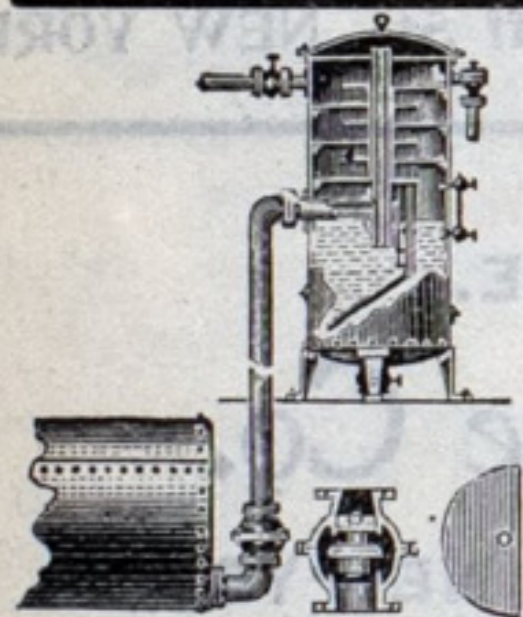
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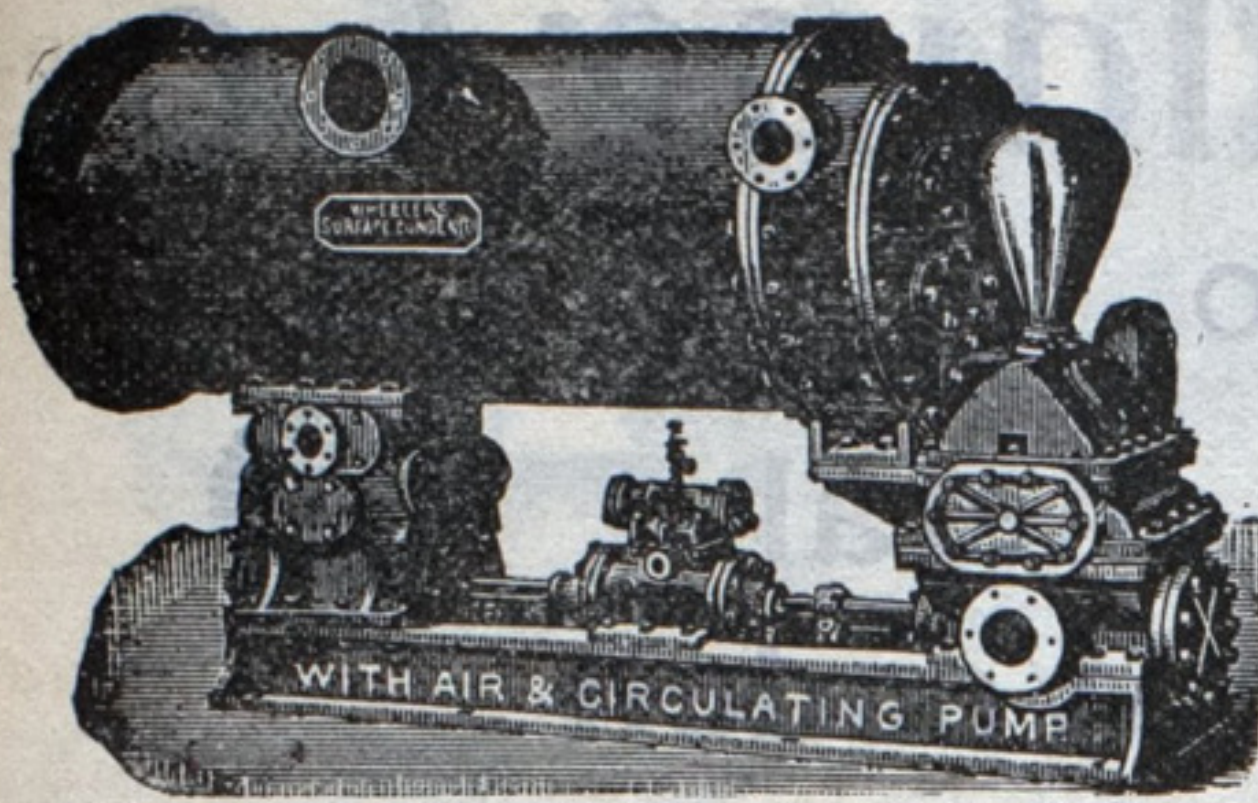
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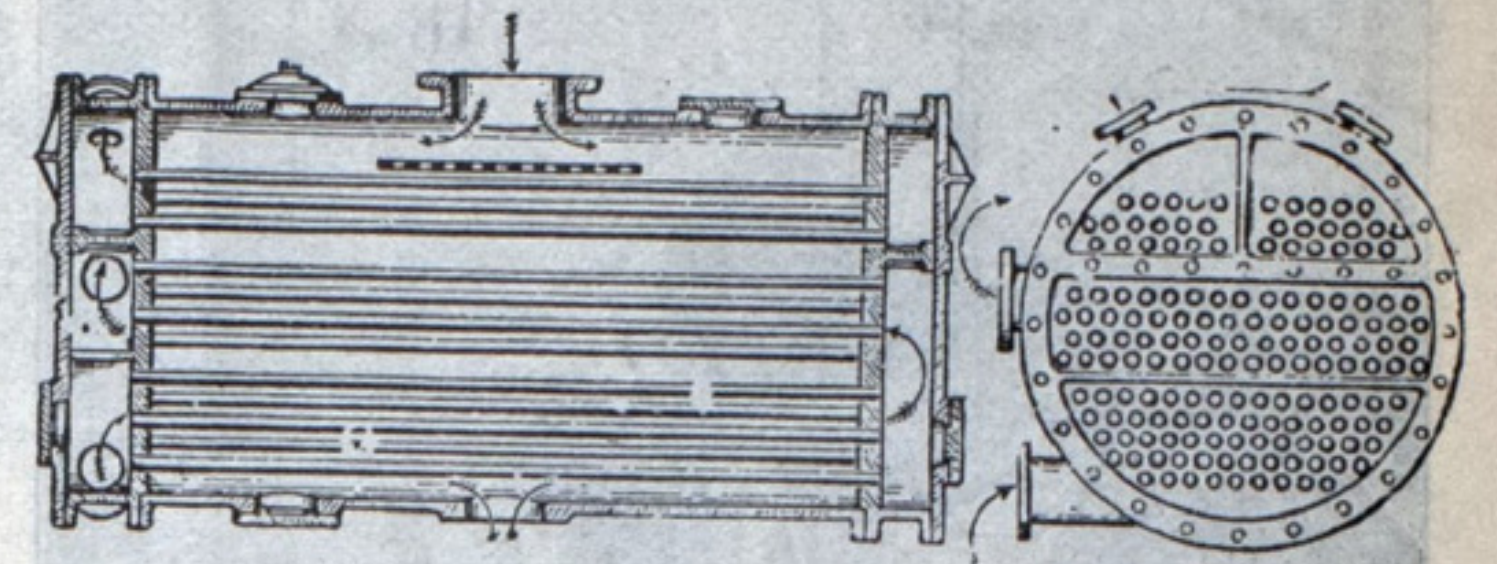
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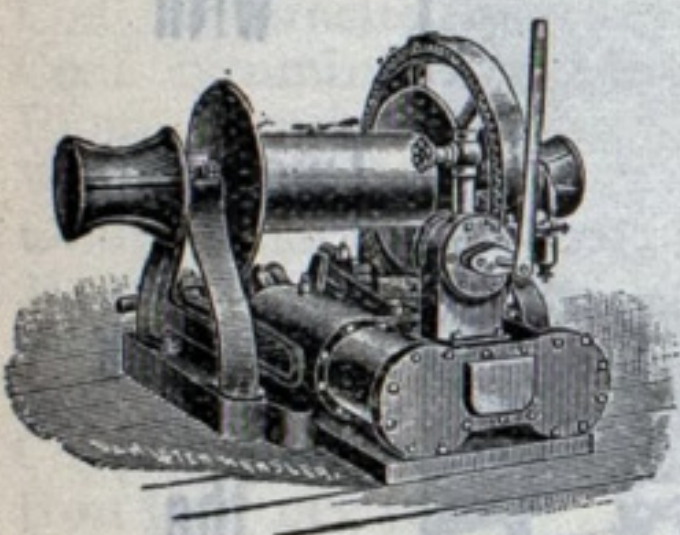
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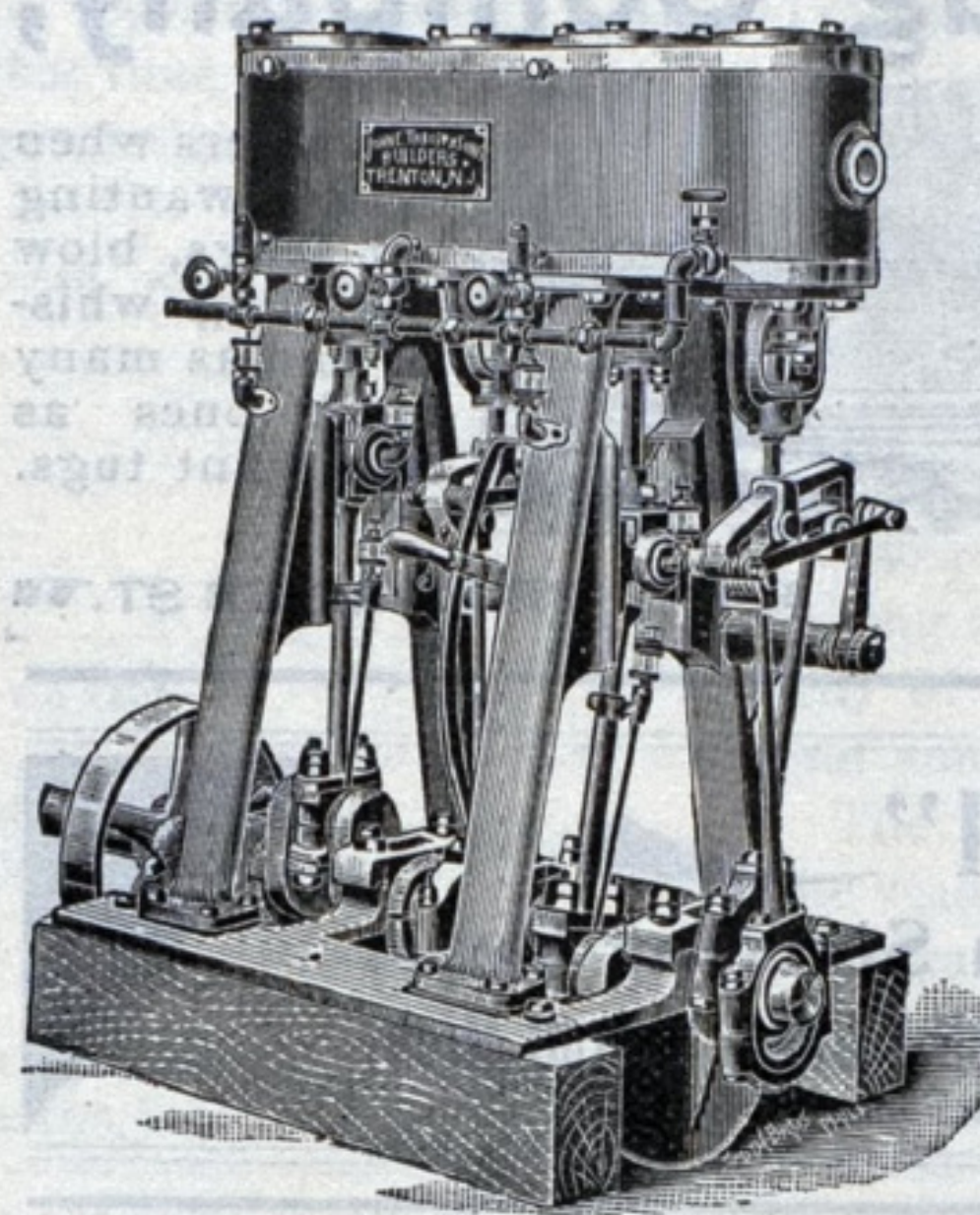
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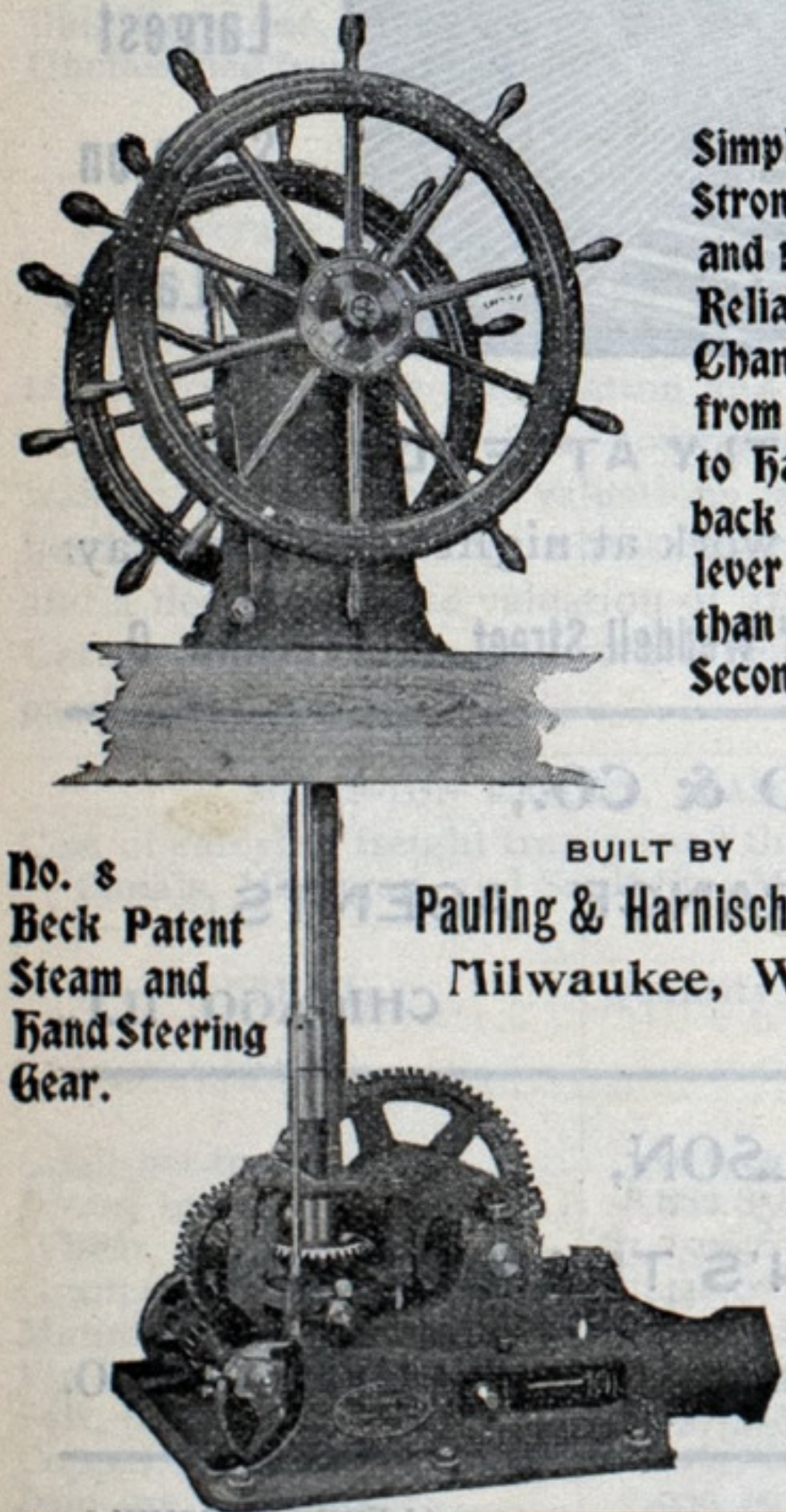


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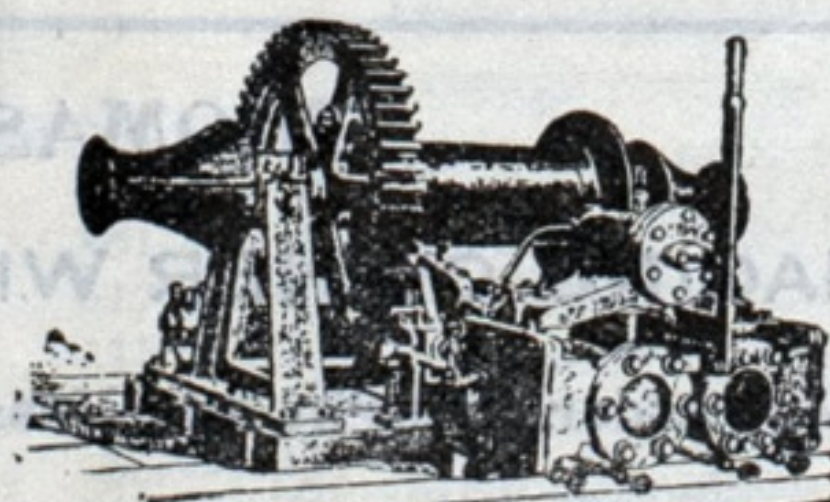
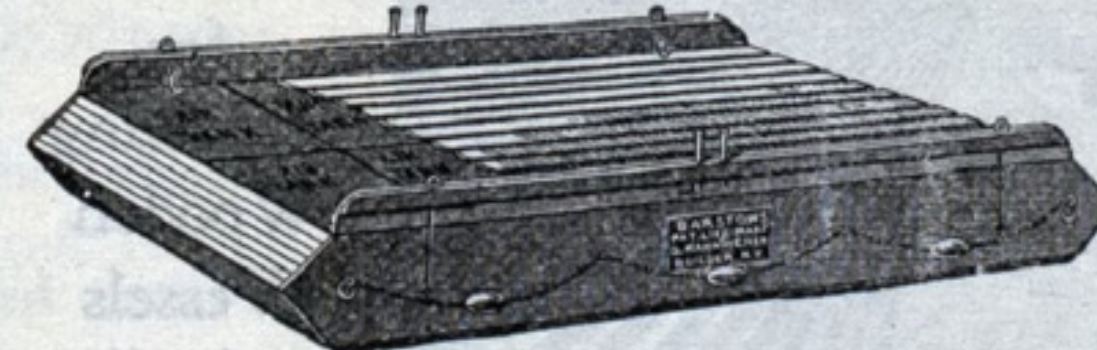


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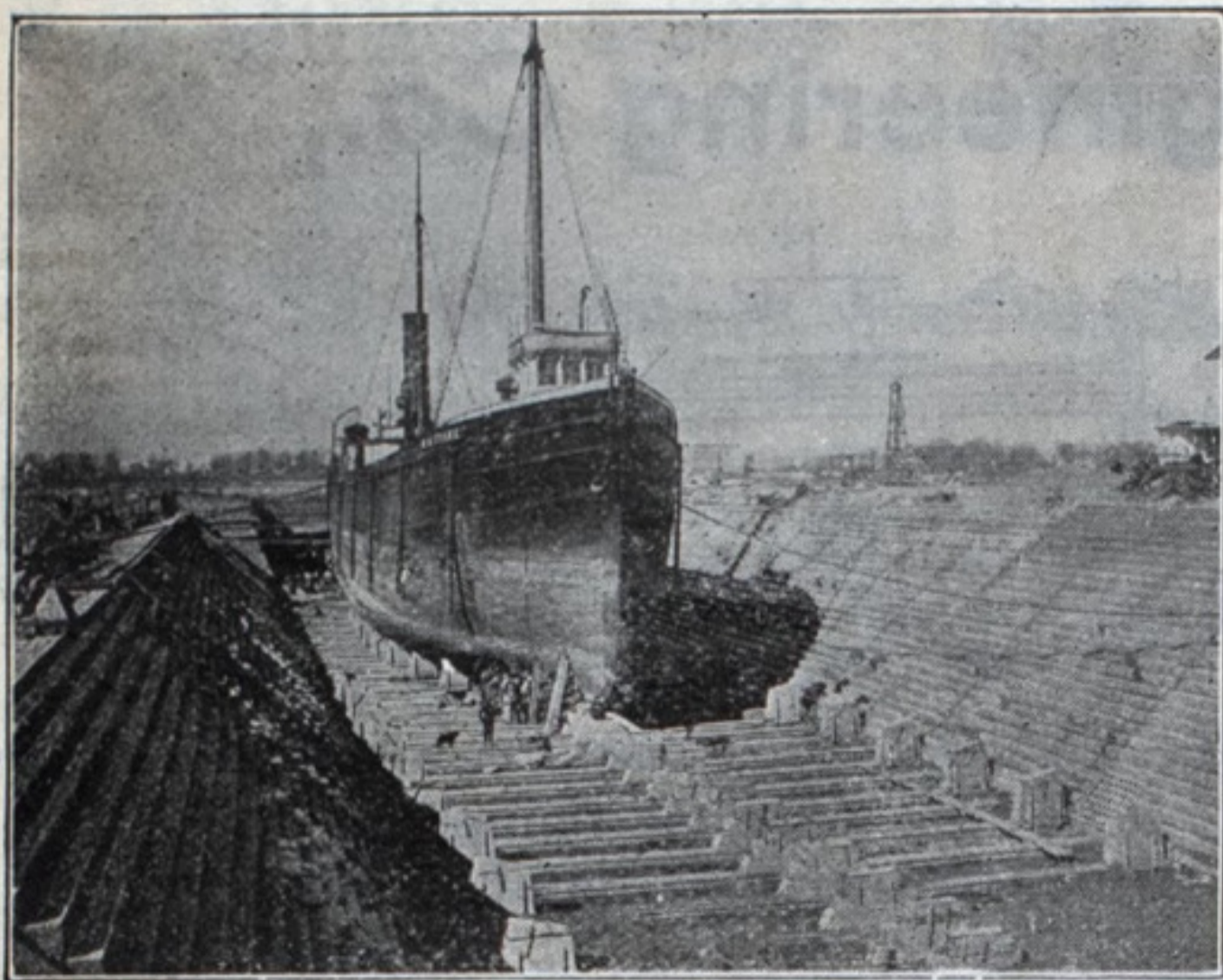
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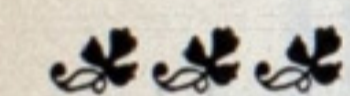
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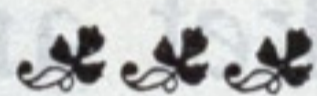
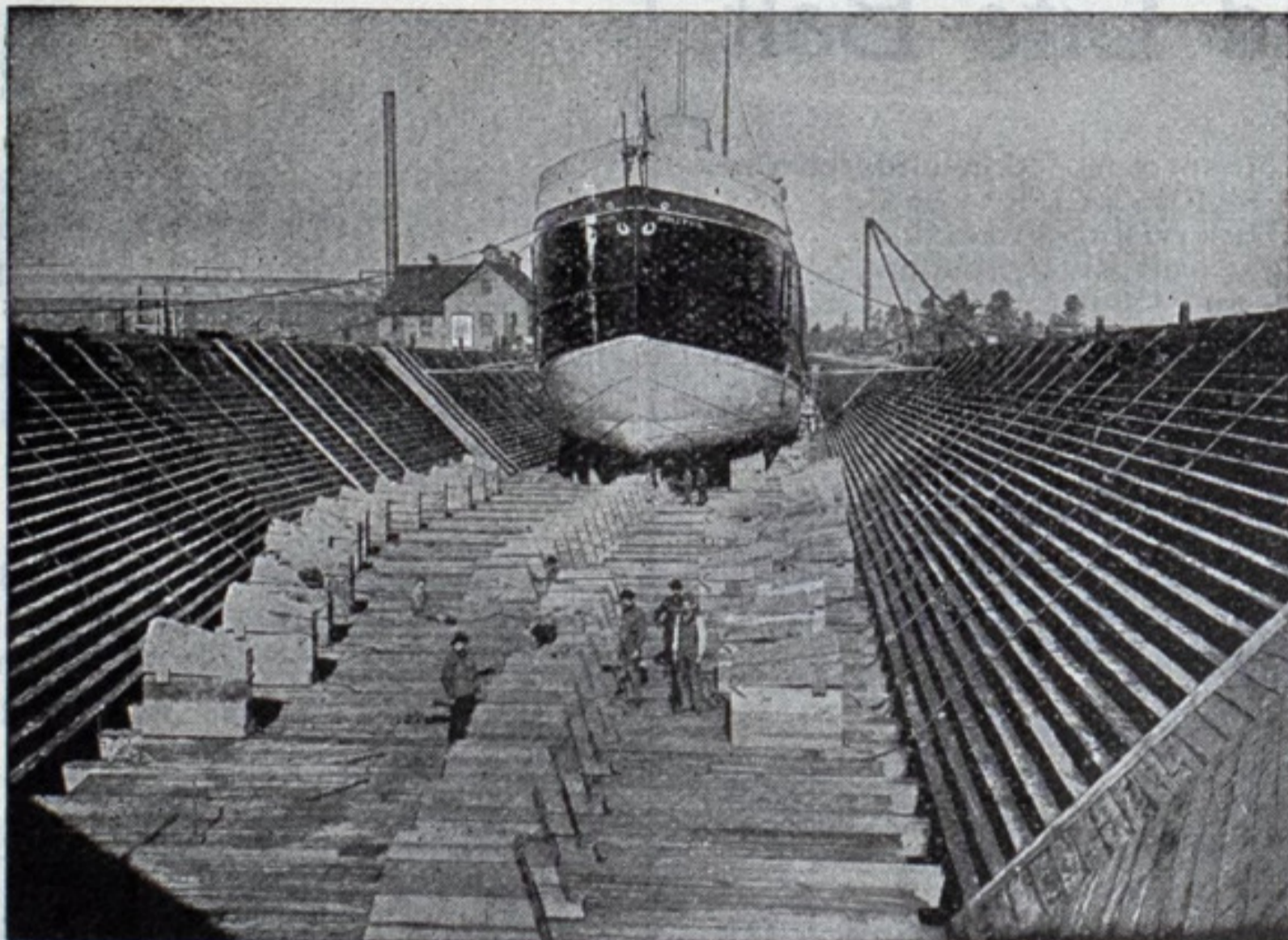
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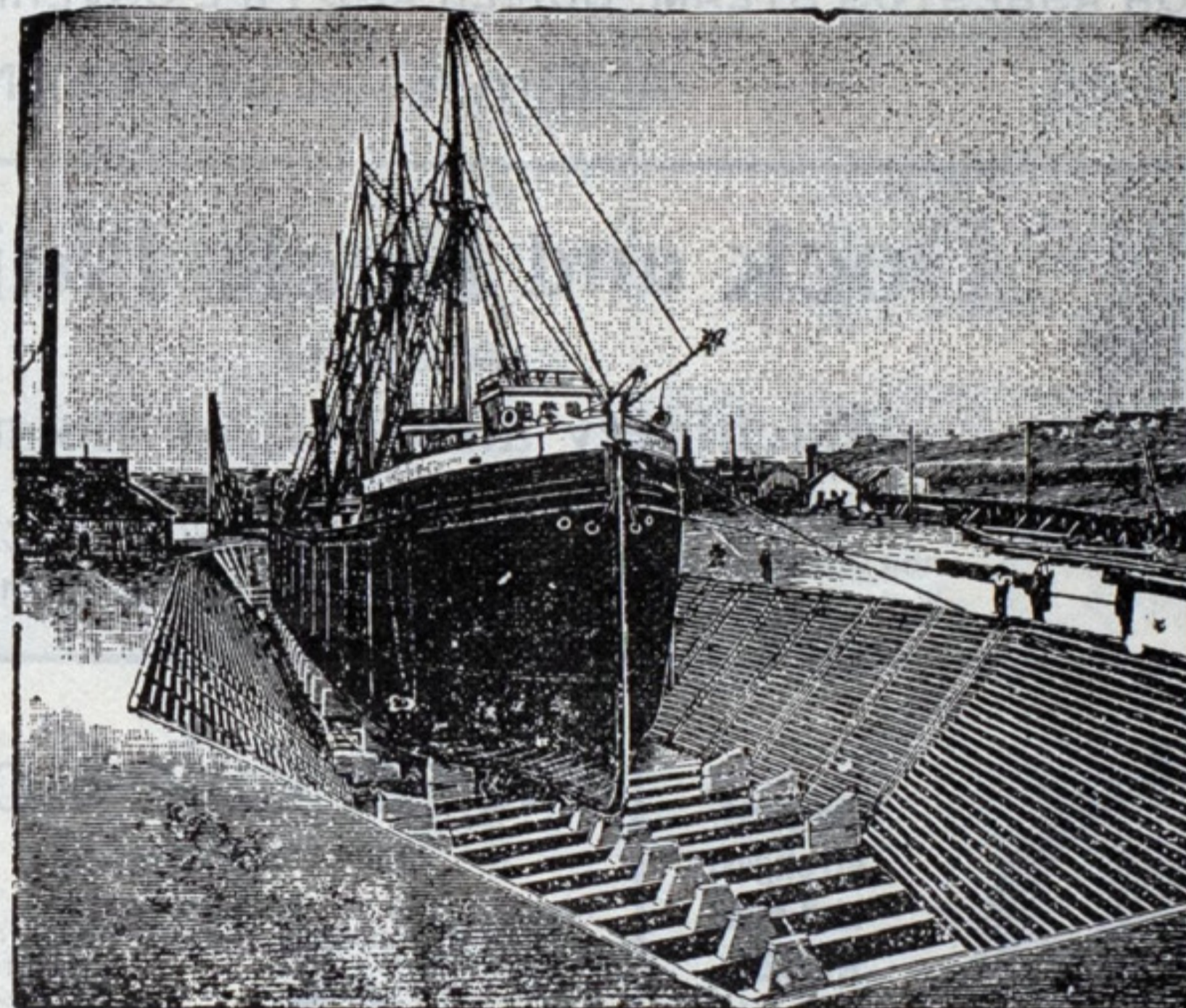
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